MEDICAL

TIMES

Journal for the Family Physician

May, 1960

VERTEBRAL ORTHOPAEDIC CONDITIONS

DERMATOLOGIC DIAGNOSIS

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*G. A. Constant: Dis. New. System, 21: (Suppl.), 37, 1960.

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- 1. Fremont, R.E.: Personal Communication (Dec., 1959):
- 2. Summary of Case Reports on File, Ives-Cameron Company.
- 3. Sherber, D.A.: Personal Communication (Oct., 1959).
- 4. Russek, H.I.: Personal Communication (Oct., 1959).

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CONTENTS

Features 535 Vertebral Orthopaedic Conditions Eugene L. Jewett, M.D., F.I.C.S., F.A.C.S. 544 Principles of Dermatologic Diagnosis: Part 1 Morris Leider, M.D. 557 Sexual Potency and the Physician Alex L. Finkle, M.D. Institutional Care of the Long-Term Patient 560 Herbert Notkin, M.D. Psychiatric Treatment Resources: Part 2 566 Charles E. Goshen, M.D. The Attitude of the Physician Toward Athletics 576 M. L. Trewin, M.D. 579 **External Otitis**

Irving L. Ochs, M.D.

BPA

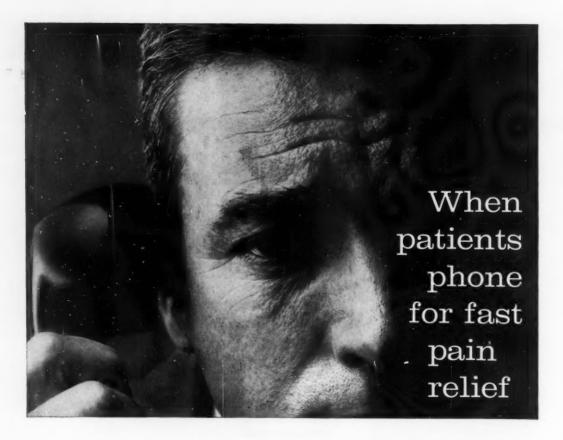
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- 1 Harrisson, J.W.E.; Packman, E.W., and Abbott, D.D.: J. Am. Pharm. Assn. (Scient, Ed.) 48:50-56 (Jan.) 1050
- 2 Paul, W.D.; Dryer, R.L., and Routh, J.L.: J. Am. Pharm. Assn. (Scient. Ed.) 39:21 (Jan.) 1950.
- 3 Tebrock, H.E.: Ind. Med. & Surg. 20:480-482, 1951.
- 4 Muir, A., and Cossar, I.A.: Brit. M.J. 2:7-12 (July 2) 1955.
- 5 Waterson, A.P.: Brit. M.J. 2:1531 (Dec. 24) 1955.
- 6 Brown, R.K., and Mitchell, N.: Gastroenterology 31:198-203 (Aug.) 1956.
- 7 Kelly, J.J., Jr.: Am. J. Med. Sci. 232:119-128 (Aug.) 1956.
- 8 Brick, I.B.: J. Am. Med. Assn. 163: 1217-1219 (Apr. 6) 1957.
- 9 Trimble, G.X.: Correspondence, J. Am. Med. Assn. 164:323-324 (May 18) 1957.
- 10 Lange, H.F.: Gastroenterology 33: 770-777 and 778-788 (Nov.) 1957.

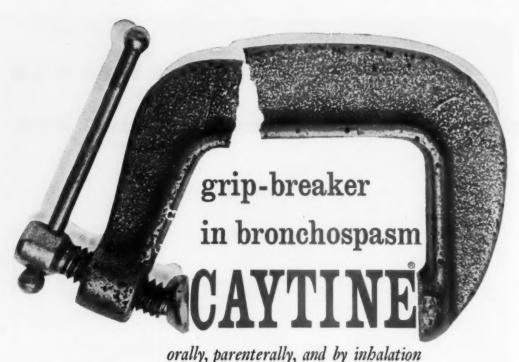
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CONTENTS

Continued

- Features 582 New Hope for the Hemiplegic J. Edward Johnson, M.D.
 - Oral Maintenance Therapy After Parenteral
 Digitalization
 M. A. Gold, M.D., F.A.C.P.
 - A Recent Advance in Cholesterol Metabolism Control Wilbur Oaks, M.D.
 Philip Lisan, M.D.
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 - 598 Griseofulvin in the Management of Fungus Infections Lawrence Frank, M.D.
 - Peculiar Writing Mannerisms
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(1) Leslie, A., and Simmons, D. H.: Am. J. M. Sc. 234:321, 1957. (2) Settel, E.: Am. Pract. & Digest Treat. 8:1249, 1957.

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CONTENTS

Continued

Editorial	613	On the Quantity and Quality of Life
		I Fruitless Longevity II Moral, Religious, National and Legal Responsibilities of Physicians in Care of the Incurably Ill or the Dying III A Discussion of the Prolongation of Life in the Incurably Ill and the Dying
Remember When	620	Early Days of the Electrocardiogram
Editor's Excerpts	622	The Long and Short of It
Conferences	628	Kings County Medical Conference Pneumococcal Meningitis and Mastoiditis
	633	Clinical Pathological Conference Norwalk Hospital
Hospital Center	645	Norwalk Hospital
Public Relations	650	How to Remember Your Patients' Name Jesse Bremner
Economics	652	A Guide to the Low-Priced Foreign Cars



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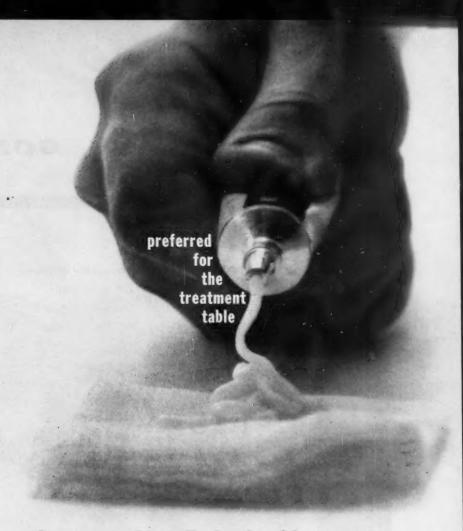
CONTENTS

Concluded

Departments	17a	Therapeutic Reference			
	25a	Off the Record			
	33a	Diagnosis Please!			
	45a	Coroner's Corner			
	53a	Medical Teasers (Crossword puzzle)			
	61a	What's Your Verdict? (Unusual medico-legal cases)			
	67a	After Hours (Doctors' Hobbies)			
	77a	Letter to the Editor			
	81a	Who Is This Doctor?			
	85a	Mediquiz			
	95a	Modern Medicinals			
	164a	Modern Therapeutics (Abstracts)			
	190a	News and Notes			
	225a	Covering the Times			
	228a	Advertisers' Index			
	440	**************************************			
Travel	140a	AMA Convention: Miami Beach			
	158a	Travel Notes			
	162a	Calendar of Meetings			
Investing	111a	A Diminishing Minority			
		High Costs of Welfare			
		Pennsy to Madison to International Mining			
		The Favorite Fifty			
		Steel Industry Expanding			
		Comeback in Japan's Motor Industry			
		Reach for a Sweet, Instead			
		Going Public			

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 Mintz, A. A.: Management of the Febrile Child, J. Ky. Acad. Gen. Pract. 5:26 (Jan.) 1959.



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Novahistine Singlet Tablets 55a
Perazil 194a
Polaramine 212a, 213a
Quadrinal 18a
Tedral 185a
Twiston 69a
Ursinus 203a

Analgesics, Narcotics, Sedatives and Anesthetics

Alurate Elixir 24a
Bufferin 6a
Doriden 38a, 39a
Nembutal 110a
Noctec 14a
Noludar 300 658
Parafon with Codeine 114a
Percodan Tablets 145a
Tylenol 16a
Xylocaine Viscous 189a

Antibacterials

Altafur 116a, 117a Furacin-HC Cream 96a

Antibiotics and Chemotherapeutic Agents

Alpen 56a, 57a, 58a, 59a Bacimycin Ointment 50a Chloromycetin 197a Darcil Between pages 50a, 51a; 51a Declomycin Syrup 141a Dramcillin-S 124a, 125a Maxipen 86a, 87a Neo-Polycin Ointment 12a

Anticholinergics

Milpath 175a Pathibamate 156a, 157a

Antidepressants

Deprol 102a, 103a Nardil 74a, 75a Tofranil 191a

Antiemetics

Bonadoxin 170a

Antiinflammatory Agents

Chymoral 71a

Antispasmodics

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Continued

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Butiserpine 146a
Citrus Bioflavonoids 176a, 177a
Cyclospasmol 221a
Diupres 22a, 23a
Diuril 128a, 129a
Gitaligin 97a
Isordil Tablets 4a
Peritrate 20 mg. 28a
Pronestyl Hydrochloride 150a
Raudixin 195a
Rauwiloid 36a
Serpasil 178a, 179a
Serpasil-Apresoline 169a
Singoserp 62a, 108a, 109a, 208a

Central Nervous Stimulants

Ritonic 3a

Contraceptives

Delfen 180a Immolin 92a Lanesta Gel 187a Preceptin 180a Ramses 60a

Cough Control

Dimetane Expectorant and DC 207a Phenergan Expectorant 165a

Diagnostic Agents

Color Calibrated Clinitest 44a

Diarrheal Disorders

Cremomycin 105a Spensin-PS 32a

Dressings

Tucks 174a

(VOL. 88, NO. 5) MAY 1960

Epilepsy

Dilantin 78a, 79a Mebaral 64a

Equipment and Supplies

Bard-Parker Sterile Blades 68a Birtcher Equipment* 206a Miranda Automex Camera 202a Yale Sterile Disposable Needles 193a

Eye, Ear, Nose and Throat Preparations

Auralgan 155a Bio-Tosmosan HC 155a Larylgan 155a Otos-Mosan 155a Rhinalgan & HC 155a

Feminine Hygiene

Tassette 48a

Gastrointestinal Therapy

Kanulase 76a Oxaine 136a, 137a

G.U. Preparations and Antiseptics

Furadantin 73a

Hematinics

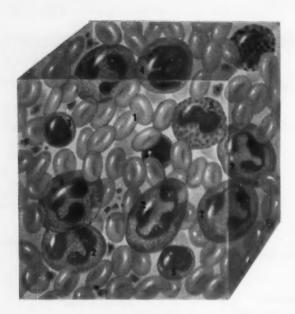
Chel-Iron 80a Iberol Opposite page 35a Mol-Iron 20a Pronemia 10a

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Rectal Medicone Suppositories 218a Rectal Medicone Unguent 219a

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Dorbane 139a Dorbantyl, Dorbantyl Forte 139a Surfak 90a

Miscellaneous

Frigidaire Automatic Washers 214a

Muscle Relaxants

Analexin 172a, 173a Rela 132a, 133a Soma Opposite page 83a; 83a

Parkinsonism

Cogentin Cover 4 Parsidol 98a Phenoxene 153a

Salt Substitute

Diasal 166a

Skin Disorders

Cort-Dome 159a
Desenex 34a
Domeboro 159a
Fostex 183a
Fulvicin 147a
Grifulvin 99a
Hydro-Tar 186a
Neo-Cort-Dome 159a
Selsun Opposite page 34a
Sulpho-Lac 210a
Vergo 198a
Vitamin A & D Ointment 104a
Vitamin A & D Ointment with Prednisolone 167a

Steroids and Hormones

Aristocort 204a, 205a Decadron 216a, 217a Deladumone 2X 224a Delenar 42a, 43a Kenacort 26a, 27a Medrol 123a Norlutin 93a Nugestoral Cover 3 Tace 149a, 151a

Tranquilizers

Atarax 119a Librium Cover 2 Mellaril 40a, 41a Meprospan-400 91a Miltown Opposite page 82a; 160a Permitil 113a Sparine 70a

Ulcer Management

Aludrox SA 84a Medrol 49a Modutrol 163a

Vaginal Preparations

Hyva Vaginal Tablets 35a Triburon Vaginal Cream 135a Tricofuron Improved 131a Vagisec 211a

Vertigo

Dramamine, Dramamine-D 94a

Vitamins and Nutrients

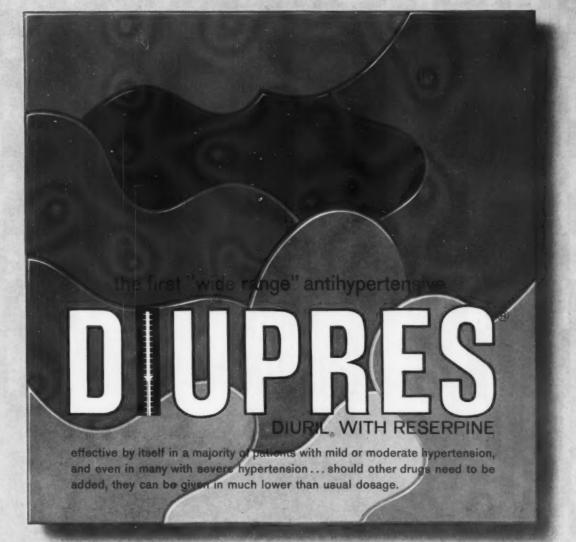
Aquasol A Capsules 88a, 89a Beminal Forte 46a Eldec 222a, 223a Filibon 52a Gevral, Gevral T 30a, 31a Gevrine 30a, 31a Homagenets 229a Vi-Sol Tablets 161a

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ALURATE®—brand of aprobarbital

ROCHE LABORATORIES

Division of Hoffmann-La Roche Inc Nutley 10, N. J.





Off the Record...

True Stories From Our Readers

Contributions describing actual and unusual happenings in your practice are welcome. For obvious reasons only your initials will be published. An imported sculptulite figurine . . . an amusing caricature of a physician . . . will be sent in appreciation for each accepted contribution.

It's Only the Beginning

A young expectant father came rushing to my home one morning about 4 A.M. He pounded on the door and shouted: "Better hurry, Doc. She's getting mighty damned noisy."

R.J.L., M.D. Castle Rock, Wash.

It's All in Fun

I had just given a 5-year-old boy a polio vaccine injection and he was obviously very angry with me. To make conversation I asked if he would like me to give his mother a shot also. He said yes.

Then I asked, "Where shall we give it?"

"In the heart," he said.

Surprised and puzzled, I asked him why the heart. His chilling answer was right to the point: "Well, that would kill her."

R.J.D., M.D. Merrillville, Ind.

Nothing Like Emulation

Eight-year-old Stuart had just received a penicillin injection, as he had on several previous occasions. Upon leaving the office and with the "sting of the asp" fresh in his memory, he told his mother, "When I grow up I'm going to be a doctor just like Dr. R."

"What kind is that?" his mother asked.

Pointing to my shingle, the boy said: "Penicillin and Surgeon—just like it says there."

W.D.R., M.D. Evansville, Ind.

A Winter's Tale

While interning in Lansing, Mich., several winters ago, I was called to the emergency room late one night. At first glance it appeared the vociferous, roly-poly, nightgowned young woman was a victim of excessive holiday celebrating.

However, on closer questioning of accompanying friends, I learned that the patient had stepped into an open manhole while sleep-walking, and due to the generous diameter of her abdomen, she had become firmly wedged.

Kindly neighbors had supplied stimulants adequate to ward off effects of exposure until a rescue squad could be summoned.

K.C.C., M.D. Lenoir, N.C.

A Silly Question, Doctor

I had been practicing only a short while when a man brought in a small bottle of breast milk and asked me if I could analyze it. I told him that I could, but that it would be better for me to examine the baby and see if the milk was agreeing with him.

"How is the baby?" I asked him.

"I do not know anything about the baby," he replied.

This made me think that he had brought the specimen for a neighbor, and so I said, "Oh, it's not your baby."

At this he stood erect, looked angry and Concluded on page 29a

the corticosteroid that adapts



effectively treats the primary disorder in steroid-responsive patients...helps to minimize or avoid certain unwanted corticosteroid effects in the OBESE

∧ CARDIAC

HYPERTENSIVE

EMOTIONALLY LABILE

treatment to the individual patient

spot your steroid-responsive patient and the problem

the obese arthritic:

On Kenacort, the *obese arthritic* is likely to experience 2 basic therapeutic effects

- · alleviation of arthritic symptoms
- welcome reduction or elimination of many undesirable steroid effects

no salt or water retention absence of edema no voracious appetite no unnatural euphoria no secondary hypertension less chance of G.I. upset

Kenacort highly rated:

- least likely to produce sodium or fluid retention of all leading corticosteroids^{1,2}...preferable in patients with cardiac disease or other conditions presenting this problem³
- "... and because of appetite suppression properties, triamcinolone (Kenacort) may be helpful in the obese arthritic, and especially the obese arthritic with chronic heart disease or psoriasis"³



KENAGORT

SQUIBB



Squibb Quality the Priceless Ingredient

While Kenacort is notable for its low incidence of collateral hormonal effects, it should, like all potent corticosteroids, be administered to patients under careful clinical supervision. Detailed information available on request. Kenacort is available in 1 mg., 2 mg., and 4 mg. scored white tablets.

References: 1. McGavack, T. H.: Clin. Med. 6:997 (June 1959). 2. Plotz, C. M.: Paper on administration of corticosteroids in rheumatoid arthritis, presented at the 11th Annual Scientific Assembly of the New York Academy of General Practice, New York City, (October 20, 1959). 3. Williams, G. T.: Southern Med. J. 52:267-273 (March 1959).

after a myocardial infarction and throughout the course of postcoronary convalescence...

Peritrate helps <u>establish</u> and sustain collateral circulation

- 1. improves coronary blood flow with no significant drop in blood pressure or increase in pulse rate
- 2. helps support natural healing and repair
- 3. helps reduce myocardial damage
- 4. smooth onset of action minimizes nitrate headache

basic therapy in coronary artery disease

Peritrate[®] 20 mg.

the selective, long-acting coronary vasodilator





said: "I know damn well it's my baby."

B.C.W., M.D. Kinston, N.C.

Troublesome Words

For a long time I've been intrigued with the words patients use to describe symptoms and parts of the anatomy. Some of the things they come out with are nothing more than mispronunciations, some are malapropisms, some are old terms now out of general use.

For instance, one friend from the South speaks of the crove (top) of his head; and he strongly objects to one kind of medicine because it gives him the "all overs." Another patient, a fine lady, does not approve of "prenatal" relations—premarital is what she means.

Doctors should watch their word choice too. A doctor should never be "dead sure" of anything to a patient who is frightened at the thought of death.

In a ward one doctor was heard to tell his patient that they were on the "last leg" of the treatment—and in the very next bed lay a patient who had had a leg amputated.

B.E.K., M.D. Elkhart, Ind.

Best To Know Your Assistant

I was fixing up home traction for a farmer's broken leg, which of course took quite a bit of time. Helping me was one of the patient's children—either a son or a late teen-aged daughter dressed in men's clothing. I honestly couldn't tell which.

Finally we went to the barn to find a screw driver to fasten the traction to the ceiling. I found I needed badly to go to the "W.C.," but I still couldn't determine if my assistant was a boy or girl.

' I finally asked, "What is your name?"

"Irene," came the reply.

I suffered on.

L.G.S., M.D. Chehalis, Wash.

Fine, Now Let's Try Multiplication

It happened during the severe flu epidemic of 1918 that the country doctor, who had been swamped with office and house calls all day, came to his last house call close to midnight.

The case was another respiratory infection, so the doctor told the patient, a farmer with a thick Irish brogue, to turn on his side and to start counting aloud. The exhausted doctor, listening with his stethoscope, soon dropped off to sleep.

When the doctor woke up the farmer was still going strong: "Tin tousend sebenti-six, tin tousend sebenti-seben . . ."

E.S.S., M.D. Grand Rapids, Mich.

An Easier Target

During the past hunting season I was the house guest of a couple who are my patients. During the five days of shooting I had one opportunity at a deer and missed.

Two weeks later my gracious hostess came down with tonsillitis. When I gave her some I.M. Penicillin, she said, "If you could hit a buck like that, it would be fine."

I could not resist retorting, "If I got that close and had such a large target, I couldn't miss."

Anonymous

Oh the Heck With the Neighbors!

Little six-year-old Cindy had been given what both I and her mother thought was a very thorough explanation of the events leading up to and including her planned tonsillectomy at the hospital the following week.

But the child seemed ill at ease and wore a worried frown on her face. I asked her if she had any questions.

She nodded and said, "Doctor, what will the neighbors think when I come home from the hospital with a new baby?"

R.J.M., M.D. Evansville, Ind.

to prevent... or correct... deficiencies THE LEDERLE NUTRITIONAL **FORMULAS**

Much of the field of nutrition relating to health has fallen into the hands of the faddist and the radio broadcaster.* To protect his patients, the physician should take every opportunity to recommend a program for optimal nutrition.

*Spies, T. D.; J.M.A. Alabama 26:193 (Feb.) 1957.

LEDERLE LABORATORIES A Division of AMERICAN CYANAMID COMPANY Tedente Pearl River, New York



GEVRAL

Capsules Vitamin-Mineral Supplement

Effective general supplement for the family to ensure optimal nutritional status. Fourteen vitamins, eleven minerals in each dry-filled capsule. Pack-aged in the decorative dining-table jar. Just 1 capsule daily.



GEVRABON

Liquid Vitamins-Minerals

Unique sherry-flavored liquid supplement particularly favored by senior citizens. Essential vitamins-minerals in attractive de-canter bottle (16 oz.). 2 tablespoonfuls daily ...plain ... chilled ... over ice...or as they like it.



GEVRINE

Vitamins-Minerals-Hormones

For the elders — comprehensive nutritional support with androgen and estrogen for proper bone and protein metabolism. Helps reduce or correct tissue atrophy, asthenia, clinical osteoporosis, postmenopausal changes, "aging" mentality. Usually 1 capsule daily. Bottles of 100 and 1,000.

GEVRINE



GEVRAL PROTEIN

Vitamin-Mineral-Protein Supplement

High protein (60 per cent) supplement plus 26 vitamins-min-erals... to correct or prevent deficiencies, nitrogen imbalance. Ideally suited to those making a general physical "comeback." In ½ lb. jar or 5 lb. can. New delightful recipes available on request. Excellent for tubelieeding.



Capsules Therapeutic Vitamins and Minerals

High potency formula... broad coverage... for intensive treatment of overt or incipient nutritional failure. 28 factors — including all oil-soluble vitamins, all B-complex, amino acids. Indicated for the convalescent or whenever requirements are abnormally high. In attractive dining-table jar. Usually 1 capsule daily.





All the advantages of liquid Spensin-PS in convenient tablet form. Two synergistic antibiotics, polymyxin and dihydrostreptomycin for decisive bactericidal action. The activated adsorbent of 5 to 8 times kaolin's capacity: Attapulgite—shown by in vitro studies to adsorb enteropathogenic viruses and bacterial endotoxins.

SPENSIN-PS: removes bacterial endotoxins • kills organisms susceptible to polymyxin and dihydrostreptomycin • restores normal fluid absorption • soothes irritated intestinal mucosa • produces stools of normal consistency.



SPENSIN®-PS

Tablets and Suspension: Activated attapulgite, pectin, alumina with polymyxin B sulfate and dihydrostreptomycin

*TRADEMARK



Diagnosis, Please!

Edited by Maxwell H. Poppel, M.D., F.A.C.R., Professor of Radiology, New York University College of Medicine and Director of Radiology, Bellevue Hospital Center

Fifty-seven-year-old female.

Chief Complaints:

Mid-epigastric pain radiating towards the right and posteriorly for one day. Nausea and vomiting.

Which is your diagnosis?

- 1. Small bowel obstruction
- 2. Gallstone ileus
- 3. Emphysematous cholecystitis
- 4. Cholecysto-duodenal fistula

Answer on page 223a





on the spot coverage

Athlete's foot is caused by fungi invading the horny, keratinized layers of the skin that are not reached by the normal blood supply. Desenex applied topically to superficial fungous infections brings the antifungal undecylenic acid and zinc undecylenate into direct contact with the fungi. Hundreds of thousands of cures in athlete's foot have resulted from topical treatment with Desenex — proved to be among the least irritating and best tolerated of all potent fungicidal agents. Pennies per treatment — Desenex Ointment may be applied liberally to both feet every night for a week and a half from a single tube.

ointment & powder & solution

Desenex maltitue

Maltbie Laboratories Division, Wallace & Tiernan Inc., Belleville 9, New Jersey PHOTOGRAPH, COURTESY DEPARTMENT OF DERMATOLOGY, UNIVERSITY OF PENNSYLVANIA PD-01

EVEN HER DOCTOR DOESN'T KNOW... (she has dandruff). The great lavender coverup. Too many people take this wig-on-the-head attitude toward dandruff... if you can't see it, it isn't there. (Besides which, they've tried all the "sure cures" anyway and yet they're still scratching.) Someone should tell them there's a medical answer to dandruff control—Selsun. It could be that an authoritative word from you...and a prescription for Selsun... would be the best thing that could happen to your next scalp-scratcher. SUSPENSION





ANEMIA OF PREGNANCY



another indication for



potent antianemia therapy plus the complete B-complex

2 IBEROL FILMTABS A DAY SUPPLY:

The Right Amount of Iron

Ferrous Sulfate, U.S.P....... 1.05 Gm. (Elemental Iron—210 mg.)

Plus the Complete B-Complex

Vitamin B₁₂ with Intrinsic

Factor Concentrate, 1 U.S.P. Unit (Oral)
Liver Fraction 2, N.F 200 mg.
Folic Acid 2 mg
Thiamine Mononitrate 6 mg
Riboflavin 6 mg
Nicotinamide 30 mg
Pyridoxine Hydrochloride 3 mg
Calcium Pantothenate 6 mg

Plus Vitamin C

Ascorbic Acid 150 mg.

FILMTAB-FILM-SEALED TABLETS, ABBOTT

THE CLASSICAL TREATMENT FOR VAGINAL MONILIASIS

VAGINAL TABLE

the only

SPECIFIC ANTIMYCOTIC VAGINAL TABLET WITH A GEL FORMING BASE

A vaginal therapy: Methylrosaniline chloride (gentian violet) has generally proved the most effective and specific agent for the treatment of vaginal candidiasis caused by the fungus Candida.

Hyva Gentian Violet Tablets virtually eliminate the principal disadvantages of present gentian violet preparations. They may be handled and used without staining and have psychological and aesthetic acceptance.

Hyva combines the fungicidal action of gentian violet (1.0 mgm.) with three active surface reducing agents and bactericides.* These active ingredients have been incorporated into a mildly effervescent "gel" forming base which provides for maximum and prolonged effectiveness. Shorter treatment time is required without the usual messiness normally experienced.

One tablet intravaginally for 12 nights. When necessary one tablet twice daily may be recommended. Patient should take a Nylmerate Solution water douche on arising and preceding next tablet application.

> Prescribe Hyva Gentian Violet Tablets with applicator-boxes of 12 tablets.

> > Write for descriptive literature



Alkyldimethylbenzylammonium ehloride

*Alkyldimethylbenzyuummonaan (0.5 mgm.) Polyoxyethylenenonylphenol (10.0 mgm.) Polyethlene Glycol Tert-Dodecylthioether (5.0 mgm.)



HOLLAND-RANTOS CO., INC. 145 HUDSON STREET · NEW YORK 13, N.Y.



RAUWILO

. does more than lower blood pressure!

Seven years of experience show that RAUWILOID also affords

Safety based on negligible incidence of side actions

Freedom from concern over sudden hypotensive episodes or unwanted biochemical alterations

Practicality..simplicity of dosage .. applicable to a wide range of patients

When more potent drugs are needed, prescribe one of the convenient single-tablet combinations

Rauwiloid® + Veriloid® alseroxylon 1 mg. and alkavervir 3 mg.

Rauwiloid + Hexamethonium alseroxylon 1 mg. and hexamethonium chloride dihydrate 250 mg.

Many patients with severe hypertension can be maintained on Rauwiloid alone after desired blood pressure levels are reached with combination medication.



48-hour result in acute contact dermatitis

Severe poison ivy dermatitis of face



24 hours after a single 2 cc. (80 mg.) injection of Depo-Medrol



48 hours after Depo-Medrol therapy



Even in severe, disabling cases of acute contact dermatitis, Medrol usually elicits prompt response. The duration of treatment is brief, rarely needing to extend beyond a few days.

there is only one methylprednisolone, and that is

Medrol'

that hits the <u>disease</u>, but spares the patient



Medrol is supplied as 4 mg. tablets in bottles of 30, 100 and 500; as 2 mg. tablets in bottles of 30 and 100; and as 16 mg. tablets in bottles of 50. Depo-Medrol** is supplied as 40 mg. per cc. injectable suspension in 1 cc. and 5 cc. vials.

Photographs courtesy of Earl B. Brown, M.D.

*Trademark, Reg. U. S. Pat. Off.—methylprednisolone, Upjohn

**Tradema

There's hardly a reason *not* to prescribe Doriden for every patient who needs a good night's sleep.



Why you can prescribe DORIDEN® for nearly all insomnia patients

Because it acts smoothly, because it is metabolized rapidly, because it apparently has no toxic effect on the liver or kidney, Doriden is indicated in many cases where barbiturates are unsuitable. With Doriden, for example, you can prescribe a good night's sleep for patients sensitive to barbiturates, elderly patients, patients with low vital capacity and poor respiratory reserve, and those unable to take barbiturates because of renal or hepatic disease. And Doriden patients awake refreshed -except in rare cases, there's no morning "hangover." SUPPLIED: Tablets, 0.5 Gm., 0.25 Gm., 0.125 Gm.

DORIDEN® (glutethimide CIBA)

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Co ming next month . . .

- Hypertension: Types and Treatment
 By Francis D. Murphy, M.D., Clinical Professor of Medicine, Marquette University, School of Medicine, and Director of Medicine Emeritus, Milwaukee County Hospital, Milwaukee, Wisconsin.
- The Role of Corticosteroids in Experimental Urinary Calculogenesis
 By Donald F. McDonald, M.D., Gerald P. Murphy, M.D., University of Rochester School of Medicine, Rochester, New York.
- Public Relations and the Eye
 By Ernest H. Dengler, M.D., Pottstown, Pennsylvania.
- Principles of Dermatologic Diagnosis (11)
 By Morris Leider, M.D., Associate Director, Dermatology and Syphilology, New York University Post-Graduate Medical School, New York, New York.
- Psychiatry and the Medical Practitioner
 By Benjamin J. Becker, M.D., Forest Hills, New York.
- Deafness and Dizziness
 By John R. Lindsay, M.D., Chief of Section of Otolaryngology and Professor of Otolaryngology, University of Chicago, Department of Surgery, Chicago, Illinois.
- The Induction Delivery Interval
 By Lawrence T. Brown, M.D., Denver, Colorado.
- What Is an Internist?
 By Robert J. Needles, M.D., St. Petersburg, Florida.
- Preventable Blindness
 By William H. Havener, M.D., Associate Professor of Ophthalmology and Acting Chairman of Department of Ophthalmology, Ohio State University College of Medicine, Columbus, Ohio.
- Hypertrophic Osteoarthropathy
 By Andries I. Roodenburg, M.D., Rochester, New York.
- Systemic Disease in Proctology
 By Frederick Vogel, M.D., Brooklyn, N. Y.



how does Mellaril differ from other potent tranquilizers?



specific, effective tranquilizer

provides highly effective tranquilization, relieves anxiety, tension, nervousness, but is virtually free of such toxic effects as jaundice
Parkinsonism
blood dyscrasia

dermatitis

greater specificity of tranquilizing action results in fewer side effects



"Thioridazine [Mellaril] is as effective as the best available phenothiazine, but with appreciably less toxic effects than those demonstrated with other phenothiazines.... This drug appears to represent a major addition to the safe and effective treatment of a wide range of psychological disturbances seen daily in the clinics or by the general practitioner."*

Supply: MELLARIL Tablets, 10 mg., 25 mg., 100 mg.



keep the rheumatic man in motion

new Delenar

for the first time...
total corticoid-relaxantanalgesic therapy





SCHERING CORPORATION . BLOOMFIELD, NEW JERSEY



Now you can resolve musculoskeletal inflammation rapidly with the newest steroid...relax the attendant spasm with a proved muscle relaxant... and relieve the pain with a safe, inherently buffered analgesic... to keep the rheumatic man in motion • With new Delenar you can resolve a broad range of rheumatic complaints. You can maintain the man in motion safely with the lower steroid dosage of Delenar, in rheumatoid arthritis—traumatic arthritis—low-back complaints—fibrositis—chronic fibromyositis—rheumatoid spondylitis—tendinitis—and early osteoarthritis.

Delenar

formula
Dexamethasone* 0.15 mg.

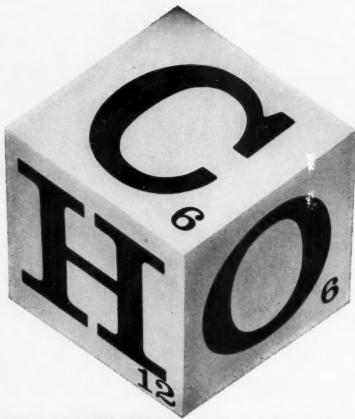
Orphenadrine HCl 15 mg.

Aluminum Aspirin 375 mg.

therapeutic actions
Newest Steroid for Antiinflammatory Action
Proved Muscle Relaxant,
Helps Restore Motion
Fast Analgesic Relief of
Motion-Stopping Pain

Dosage: Two tablets q.i.d.; after improvement is obtained, gradually reduce dosage, and discontinue where possible. Packaging: Delenar Tablets, bottles of 100 and 1,000. Precautions and Contraindications: Because Delenar Tablets contain dexamethasone, the precautions observed with this corticoid apply to their use.

1. 11



AN AMES CLINIQUICK®

CLINICAL BRIEFS FOR MODERN PRACTICE

WHY IS DIABETES IN INFANTS SO DIFFICULT TO DIAGNOSE?

Because of the infrequency of the disease in this age group, its sudden onset, the profusion of inconsistent presenting symptoms, and because the accompanying symptoms of anorexia and vomiting are also characteristic symptoms of many other ills of infancy.

*Source: Traisman, H. S.; Boehm, J. J., and Newcomb, A. L.: Diabetes 8:289, 1959.

for those pediatric puzzlers..."A routine urinalysis and blood sugar should be done whenever the possibility of diagnosing diabetes is entertained."6 the standardized urine-sugar test for reliable quantitative estimations



DIABETES MELLITUS AT AGES 1 TO 5

Order of Frequency of Presenting Symptoms in 110 Patients

Symptoms	No. of Patients	Per cent of total group
Polyuria	93	84.5
Polydipsia	89	81.0
Weight loss	47	42.7
Polyphagia	28	25.4
Anorexia	16	14.5
Lethargy	14	12.7
Enuresis	7	6.4
Vomiting	5	4.5
Irritability	3	2.7
"Craving for swi	eets" 3	2.7
"Sticky diaper"	3	2.7
"Strong odor to	urine" 2	1.8
Glycosuria	2	1.8
Hypoglycemia	2	1.8
Personality char	nge 1	0.9
Boils	1	0.9
Headache	1	0.9
Abdominal cram	ps 1	0.9
Adapted from To	raisman, H. S.; Boehm,	J. J., and New-

- · full-color calibration, clear-cut color changes
- · established "plus" system covers entire critical range
- · standard blue-to-orange spectrum
- · standardized, laboratory-controlled color scale
- · "urine-sugar profile" graph for closer control



Coroner's Corner

A beautiful imported German apothecary jar will be sent to each contributor of an unusual case report.

was invited by the local sheriff to investigate the death of a 45-year-old white man. Death occurred in a small two-room apartment at the back of a small frame house. The doors were locked from the inside. The man was lying on the floor with his head near an outside door. He appeared to have been crawling toward the door when he collapsed and died.

The room and his body gave evidence of profuse hemorrhage. The hemorrhage was found to arise from numerous small lacerations over his forehead and scalp and a large laceration through the Adam's apple at the front of the neck. No important blood vessels of the neck had been severed. A bloody open pocket knife was found near his body.

Autopsy examination revealed a small piece of cloth obstructing the trachea a short distance down from the laceration through the Adam's apple. A closet in the room revealed a skirt which had been torn. Comparison of the cloth removed from the trachea with the torn area showed the cloth was torn from the skirt.

From the appearance of the room and its contents we tried to reconstruct what must have happened previous to death. Blood on the bed and ceiling suggested he was lying on the bed and tried to injure himself with a heavy iron



jack which was found lying next to the bed. This would explain the lacerations of the fore-head and scalp. He next slashed his throat with the knife. Since he did not cut any of the large vessels of the neck, the bleeding did not bring about death.

On the floor were bloody footprints showing where he walked to the closet to tear the piece of cloth from the skirt. Footprints led into the next room where he stood before a mirror which aided him in stuffing the cloth down the trachea. He was able to get back into the other room near the door before he suffocated.

After a coroner's jury heard the evidence the verdict was death by suicide.

R. U. NORTHRIP, M.D., F.A.C.P.

Ada, Oklahoma



"All my convalescent patients get an extra lift with 'Beminal' Forte"

improve nutritionaccelerate recovery with

BEMINAL

Therapeutic B Factors with Vitamin C

A single capsule provides 250 mg. of vitamin C and massive doses of B factors to meet the need when requirements are high and reserves are low. Prescribe "Beminal" Forte during convalescence, pre- and postoperatively, and for patients on special diets to improve the prognosis and accelerate recovery.

Supplied: No. 817 — Bottles of 100 and 1,000 capsules.

Ayerst Laboratories · New York 16, N. Y. · Montreal, Canada

Schering

insect bites? in any case, for allergic symptoms, the most widely used antihistamine is CHLOR-TRIMETON.

bitten?

NOW a truly definitive answer to an ever-present problem

Tassette

the safe and sanitary

menstrual cup

You can prescribe Tassette with full assurance that your patient will find a safe, effective and completely acceptable answer to her menstrual control problem. Tassette, made of soft pliable rubber fits anatomically at the mid point of the vaginal wall and acts as a catch basin for the menstrual flow (see anatomical drawing). It is easily folded, needs no inserter, and can be simply emptied and replaced as needed. Tassette requires no measurements or fitting, and can be worn with complete comfort at all times.

Tassette permits your patient to swim, dance and engage in any activity because it catches the flow and seals it off completely. Thus there is no odor or possibility of leakage or staining as may occur during periods of heavy flow when tampons are used. There is no danger of chafing, irritation or infection, and no belt is required, as with ordinary sanitary napkins.

Tassette has many medical applications other than its use as a menstrual cup. During the intermenstrual period it provides the most satisfactory and safe method for collecting vaginal, cervical or uterine secretions for diagnostic purposes. Tassette has also been used to insure against leakages in vesico-vaginal fistula.

Modern internal menstrual control is now accepted by the medical profession and Tassette is widely recommended by gynecologists in place of sanitary napkins and tampons. In order to acquaint you with Tassette this special offer is made: Send \$3.50 (reg. price \$4.95) for one Tassette with complete directions, postage prepaid. Tassette guarantees satisfactory use for two years or your money back.





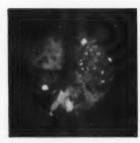
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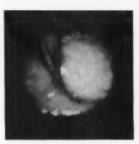
☐ Cash	Please send me	Tassettes. E	nclosed is \$
Cash Check	Name		
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Excellent results in ulcerative colitis even where other steroids have failed

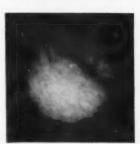
Proctoscopic view of the sigmoid in acute stage of ulcerative colitis



Proctoscopic view of the sigmoid following Depo-Medrol retention enemas for acute stage of ulcerative colitis



Proctoscopic view of sigmoid colon in a normal person



In controlling ulcerative colitis (recurrent, moderately severe, severe, and resistant), Depo-Medrol† can be given topically (by enema or rectal instillation) in requisitely large doses without producing significant side effects. Excellent results are obtainable even where other steroids have failed and improvement continues on oral Medrol maintenance dosage.

there is only one methylprednisolone, and that is

Medrol

that hits the disease, but spares the patient



Medrol is supplied as 4 mg. tablets in bottles of 30, 100 and 500; as 2 mg. tablets in bottles of 30 and 100; and as 16 mg. tablets in bottles of 50. Depo-Medrol is supplied as 40 mg. per cc. injectable suspension in 1 cc. and 5 cc. vials. Mode of administration: Depo-Medrol (40-120 mg.) given as retention enema or by continuous drip three to seven times weekly.

^{*}Trademark, Reg. U. S. Pat. Off - methylprednisolone, Upjohn †Trademark

dual antibiotic therapy gives 88% cure rate* in a wide variety of common skin infections



Vs-oz, tube with applicator tip

Walker LABORATORIES, INC



since 1943
Wyeth
has provided the physician continuously
with
new and better forms of penicillin

NOW Wyeth announces

TABLETS

DARCIL

a new, high-performance penicillin molecule

Remarkably stable in gastric acid
Efficiently absorbed
Peak blood levels rapidly induced
Highest oral penicillin blood levels
Highest urinary excretion
Lethal to many Staph. strains
Safer oral route reduces allergenicity hazard

provides the physician with an added measure of assurance
provides the patient with an added measure of protection

DARCIL clinically effective

DARCIL (phenethicillin potassium) is more rapidly and more completely absorbed from the gastro-intestinal tract than any other type of penicillin molecule. As a result, tissues are more likely to be supplied with adequate penicillin, despite individual patient-variation in the absorption of drugs. Blood concentrations of DARCIL directly reflect dosage levels, permitting adjustment of dosage to severity of infection.

Many strains of Staph. aureus susceptible

Morigi et al.¹ administered phenethicillin potassium to 47 patients with a variety of bacterial infections caused by penicillin-susceptible organisms. Clinical entities included: acute tonsillitis, acute pharyngitis, otitis media, otitis externa, cellulitis, furunculosis, carbuncle, pyoderma, impetigo, thrombophlebitis, and Vincent's angina. Dosage was 250 mg. q.i.d.; average duration of therapy, 3 to 6 days.

Twenty strains of Staph. aureus were isolated from pre-therapy cultures; 19 were highly susceptible to phenethicillin potassium in vitro; one was resistant. Seven strains of beta-hemolytic streptococcus were also isolated and found susceptible.

Of the 47 patients treated, 38 were cured, 6 improved, and 3 unresponsive. No evidence of intolerance or allergic phenomena was observed (true also in the 210 human subjects utilized for laboratory studies).

Prompt regression of symptoms

Cronk et al.² report prompt regression of symptoms and disease in all cases of bacterial infections caused by organisms susceptible to penicillin. Successfully treated were 38 patients representing cases of tonsillitis, gingivitis, otitis media, pneumonia, peritonsillar abscess, gonorrhea, cellulitis, conjunctivitis, and acute respiratory disease. The authors conclude that further experience will undoubtedly demonstrate the antibiotic to be highly efficacious in all infections caused by susceptible organisms.

References: 1. Morigi, E.M.E., et al.: Antibiotics Annual 1959-1960, Antibiotica, Inc., New York, N.Y. pp. 127-132. 2. Cronk, G.A., et al.: Ibid., pp. 133-145. 3. Wright, W.: Reported in Morigi, E.M.E., et al.: Ibid., pp. 127-132. 4. Gourevitch, A., et al.: Ibid., pp. 111-118.

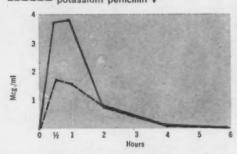
TABLETS

DARCIL

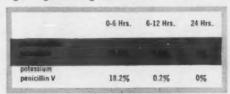
Penicillin-152 Potassium phenethicillin potassium, Wyeth

Average penicillin serum concentrations³ following a single 250-mg, dose

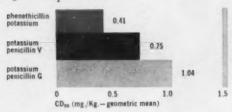
phenethicillin potassium
potassium penicillin V



Average penicillin urine concentrations¹ following a single 250-mg. dose



Median curative dose* (in animals) of penicillins against Staph, aureus



Minimum inhibitory concentrations⁴ of penicillins using *Staph. aureus* strains of clinical origin resistant to penicillin

Staph, aureus		potassium penicillin V	potassium penicillin G
52-34	0.8	6.2	12.5
52-75		25	50
WR-188		12.5	12.5
BRL J		1.6	3.1
BRL 0		12.5	25

DARCII a new, high-performance penicillin molecule



DARCIL is a new penicillin molecule, designated chemically as potassium α -phenoxyethyl penicillin. It is remarkably stable in acid solutions; is lethal in vitro to clinical isolates of certain strains of staphylococci resistant to other penicillins; has a lower CD₅₀ (median curative dose) against certain organisms than the natural penicillins; and is efficiently absorbed from the gastrointestinal tract, yielding early high penicillin scrum levels and urine excretion levels substantially higher than those observed following equivalent oral dosages of penicillin G or V.

DARCIL is active against streptococci (Groups A, B, C, and D), Diplococcus pneumoniae, Neisseria and Staphylococcus aureus, including some strains of that organism which are resistant to other penicillins. It is bactericidal in serum concentrations obtainable on oral administration. As is the case with other penicillins, bacterial resistance develops slowly.

Indications

DARCIL is recommended in the treatment of the following bacterial infections due to penicillin-susceptible organisms:

Respiratory Tract Infections: acute pharyngitis, septic sore throat, tonsillitis, otitis media, laryngitis, cervical adenitis, bronchitis and lobar or bronchopneumonia.

Skin, Soft Tissue and Surgical Infections: erysipelas, cellulitis, lymphangitis, wound infections and pyodermia.

Urinary Tract Infections: gonorrhea, acute and chronic cystitis, pyelonephritis and prostatitis.

Other Infections: scarlet fever and puerperal sepsis.

The clinical utility of DARCIL in the treatment of syphilis, endocarditis, or meningitis has not been established.

Dosage

Recommended Dosage: 125 mg. (200,000 units) or 250 mg. (400,000 units) three times daily depending on the severity of the infection. Larger doses of 500 mg. (800,000 units) three times daily or 250 mg. every four hours may be used for more severe infections.

Beta-hemolytic streptococcal infections should be treated for at least ten days to prevent the development of acute rheumatic fever.

Precautions

Allergic reactions to oral penicillin, although rare, are more likely to occur in patients with histories of hay fever, asthma, and those who have previously reacted adversely to penicillin. If the use of penicillin in such patients is imperative and reactions occur, the physician should have available resuscitative drugs such as epinephrine, antihistamines, aminophylline, etc., for intravenous administration, and discontinue further use. Administration of oral penicillin, in rare instances, may provoke acute anaphylaxis, particularly in penicillin-sensitive individuals.

The use of antibiotics occasionally results in the overgrowth of nonsusceptible organisms. If superinfection occurs during therapy, appropriate measures should be taken.

Loose stools have been reported occasionally. Other signs of toxicity are rare.

Supplied

Tablets, scored; each containing 250 mg. (400,000 units) phenethicillin potassium; vials of 36.

Wyeth Laboratories Philadelphia 1, Pa.

*Trademark





the decorative FILIBON jar, an objective reminder of the single capsule daily dose...assuring effective nutritional support every day with the complete FILIBON formula. Includes a well-tolerated iron hematinic, noninhibitory intrinsic factor in readily accepted small, oil-free capsules. For complete formula see Physicians' Desk Reference, 1960, page 697.

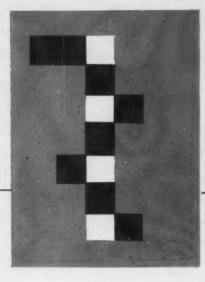
LIBON

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y. Loderto



Phosphorus-free FILIBON®

Prenatal Capsules Lederle



Medical Teasers

A challenging crossword puzzle for the physician (Solution on page 182a)

ACROSS

- 1. Resembling the skin
- B. Deep fold in the cerebral cortex
- 15. Sudden determination
- 16. Oily
- 17. Antimony (symbol)
 18. Group of athletes
 19. Discovered cause of yellow fever
- 20. Baronet (abbr.) 21. Period of time
- 23. Amalgam (abbr.)
- 24. Sea bird
- 25. Discern 26. Medicinal plant 28. Stuffs
- 30. Indigent
- 31. Onward rush 33. Company (Fr., abbr.)
- 34. Greeting 35. Kind of bandage
- 37. Neither acid nor basic
- 39. Each (abbr.)
- 40. Gram (abbr.) 41. Smallest branch of a nerve

- 46. Addicted to self-praise 51. Make into law
- 52. Complete blood count (abbr.)
- 54. One who rates
- 55. A fine 56. Uterus (pl.)
- 58. The knee
- 59. Exist
- 60. Iridium, liter (symbols) 61. Tumor (suffix) 63. Male descendant

- 64. Post graduate (abbr.) 65. Oil (comb. form) 66. Provide

- 68. After food (L., abbr.) 69. Drinking little by little
- 71. Therapeutics
- 73. Mental exaltation 74. Pertaining to a ridge
 - DOWN
- 1. Illness
- 2. Type of blood clot
- Regius Professor (abbr.)
- 4. Mongrel dog

ALAN A. BROWN

- 5. Oil (pl.)
- 6. Hebrew patriarch 7. Greek mayor
- 8. Hole or perforation
 9. Type of bowel obstruction
 10. Look for

- 11. Turf 12. We 13. Measles
- 14. An ester of sterol 22. Fixed standard

- 25. Solution, roentgen (abbr.)
 27. Einsteinium, gallium (symbols)
 29. Axioincissal (abbr.)
 30. Fondle
 32. Upright

- 34. Any body fluid 36. Calorie (abbr.)
- 38. Ovum 41. Recurrence of a disease

- 42. Abnormal inactivity 43. Man's name 44. Cold

- 45. Study of the history of
- organisms
- 46. Producing uterine contractions 47. Label
- 48. Suffix indicating dropsy 49. Vision improvement in the
- aged 50. Pertaining to the trunk 53. Buccomesial (abbr.)
- 56. Singing birds 57. Slide specimen 60. Haunch bones

- 62. Against 65. Make a choice 67. ... Moines, lowa 70. Pseudomonas (abbr.)
- 72. Right (abbr.)

Butazolidin° in arthritis and allied disorders

Ten years of experience in countless cases-more than 1700 published reports-have now established the leadership of Butazolidin among the potent non-hormonal antiarthritic agents.

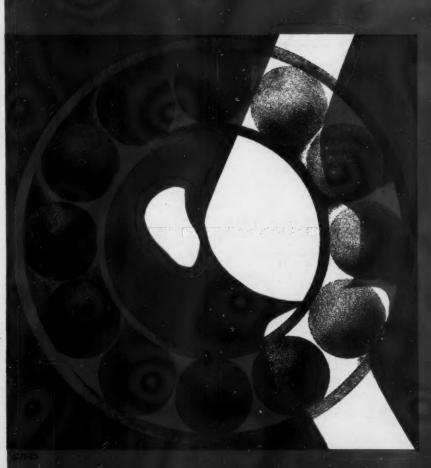
Repeatedly it has been demonstrated that Butazolidin: Within 24 to 72 hours produces striking relief of pain. Within 5 to 10 days affords a marked improvement in mobility and a significant subsidence of inflammation with reduction of swelling and absorption of effusion.

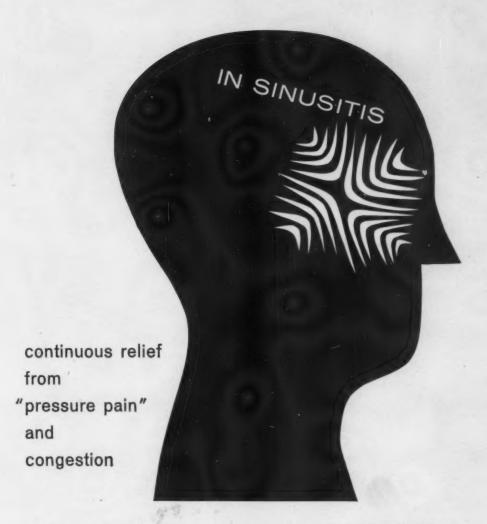
Even when administered over months or years Butazolidin does not provoke tolerance nor produce signs of hormonal imbalance.

Butazolidin® (brand of phenylbutazone): Red-coated tablets of 100 mg. Butazolidin® Alka: Capsules containing Butazolidin® 100 mg.; dried aluminum hydroxide gel 100 mg.; magnesium trisilicate 150 mg.; homatropine methylbromide 1.23 mg.

Geigy, Ardsley, New York







NOVAHISTINE SINGLET TABLET

One Novahistine Singlet tablet usually gives prompt and continuous relief in sinusitis. It combines the decongestive Novahistine Effect with a virtually nontoxic, well-tolerated analgesic. Novahistine Singlet relieves pain, opens blocked nasal sinuses, reduces edema and helps restore normal sinus drainage and ventilation.

Dosage: One tablet every 6-8 hours (usually morning, afternoon and bedtime).

Each Novahistine® Singlet tablet contains 40 mg. phenylephrine HCl, 8 mg. chlorprophenpyridamine maleate and 500 mg. APAP (N-acetyl-p-aminophenol). Supplied in bottles of 50 tablets.

Novahistine formulas have been prescribed more than 9,000,000 times since 1952—based on National Prescription Audits.



PITMAN-MOORE COMPANY DIVISION OF ALLIED LABORATORIES, INC., INDIANAPOLIS 6, INDIANA

PENICILLIN, YOUR FIRST ANTIBIOTIC, NOW SYNTHESIZED FOR IMPROVED ORAL THERAPY

THE NEW, SYNTHESIZED PENICILLIN

from Schering

THIS IS THE TABLET ALPEN is the oral penicillin that provides on a fasting stomach peak antibiotic blood levels approximately <u>twice</u> as high as oral potassium penicillin V...and significantly higher than I. M. penicillin G.

Some strains of staphylococci resistant to other penicillins exhibit in vitro sensitivity to potassium phenethicillin.

ALPEN has greater freedom from the G. I. sequelae (overgrowth of resistant flora) sometimes observed with broad spectrum -mycins.

ALPEN gives much higher antibiotic levels within the first hour of ingestion by the well-tolerated oral route.

WHEN TO USE ALPEN Recommended in the treatment of infections caused by pneumococci, streptococci, gonococci, corynebacteria, and penicillin-sensitive staphylococci.

HOW TO USE ALPEN Depending on the severity of the infection, 125 mg. (200,000 units) or 250 mg. (400,000 units) three times daily may be used. In more severe or stubborn infections, a dosage of 500 mg. (800,000 units) t.i.d. may be employed. In beta hemolytic streptococcal infections, treatment should be continued for at least ten days.

PRECAUTIONS The usual precautions in the administration of oral penicillin should be observed. For further details see package literature.

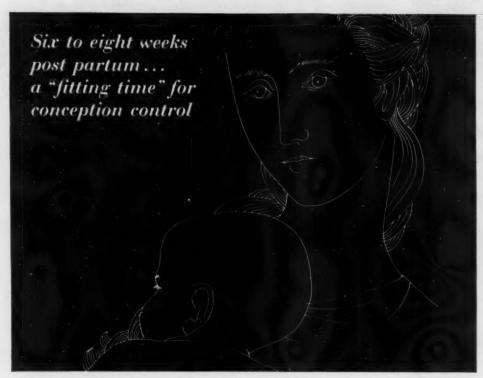
Tablets: 125 mg. and 250 mg., bottles of 25 and 100. Powder for Oral Solution (lemon-lime flavored), 1.5 Gm. bottle (125 mg. per 5 cc. teaspoonful).

this is the tablet that gives higher peak antibiotic blood levels

HIGHER THAN I. M. PENICILLIN G HIGHER THAN POTASSIUM PENICILLIN V

AILPINT - potassium phenethicillin

Schering



Conception control becomes a matter of special concern six to eight weeks post partum, when the new mother looks to you for advice on the best way to plan the balance of her family. Reliable conception control can be virtually assured with the diaphragm and jelly method, at least 98 per cent effective.1

Now-cushioned comfort

... two ways

Your patient experiences special physical comfort when you prescribe either the standard RAMSES® Diaphragm or the new RAMSES BENDEX,® an arc-ing type diaphragm.

The regular RAMSES Diaphragm, suitable for most women, is made of pure gum rubber, with a dome that is unusually light and velvet smooth. The rim, encased in soft rubber, is flexible in all planes permitting complete freedom of motion. For those women who prefer or require an arcing type diaphragm, the new RAMSES BENDEX embodies all of the superior features of the conventional RAMSES Diaphragm, together with the very best hinge mechanism contained in any arcing diaphragm. It thus affords lateral flexibility to supply the proper degree of spring tension without discomfort.

RAMSES, BENDEX, and "TUK-A-WAY" are registered trade-marks of Julius Schmid, Inc.

*Active agent, dodecaethyleneglycol monolaurate 5%, in a base of long-lasting barrier effectiveness.

For added protection—RAMSES "10-Hour" Vaginal Jelly*

RAMSES Jelly is uniquely suited for use with either type of RAMSES Diaphragm. It is by design not static, but flows freely over the rim and surface of the diaphragm to add lubrication and to form a spermtight seal over the cervix, which is maintained for ten full hours after insertion. It is nonirritating and nontoxic.

You can now prescribe a complete unit for either type of diaphragm. RAMSES "TUK-A-WAY" Kit #701 contains the regular RAMSES Diaphragm with introducer and a 3-ounce tube of RAMSES Jelly; RAMSES "TUK-A-WAY" Kit #703 contains the RAMSES BENDEX Diaphragm and

Jelly tube. Each kit is supplied in an attractive plastic zippered case, beautifully finished inside and out. Both types are now available at key prescription pharmacies.



Reference: 1. Tietze, C.: Proceedings, Third International Conference Planned Parenthood, 1953.



JULIUS SCHMID, INC. 423 West 55th Street, New York 19, N. Y.



What's Your Verdict?

Edited by Ann Ledakowich, Member of the Bar of New Jersey

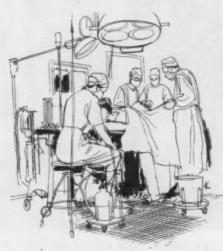
An examination of a patient in labor indicated that the unborn child was in fetal distress. The mother was immediately taken to the delivery room where her physician called for an anesthetist.

A nurse-anesthetist responded to the call and was instructed to administer 100 percent oxygen to the patient. This she did until she was advised to put the patient to sleep immediately prior to the episiotomy. The nurse then reduced the flow of oxygen to 20 percent and administered 80 percent of nitrous oxideether. Within five minutes the child was delivered, but shortly thereafter the mother gave several gasps, and died.

The husband of the deceased, as administrator of her estate, commenced a malpractice action for the death of his wife, naming as defendants her physician, the nurse-anesthetist, and the hospital. The case rested on the theory that the deceased died as a result of the improper administration of anesthesia and the failure to take the usual precautions before and during its administration.

An autopsy performed on the deceased led to a diagnosis of suffocation. The patient had vomited large amounts and had suffocated as a result of inhaling the gastric contents into the lung after they had been brought up from the stomach. A signed death certificate attested to this cause of death.

At the trial a medical expert in anesthesiology testified that the danger of vomit is a



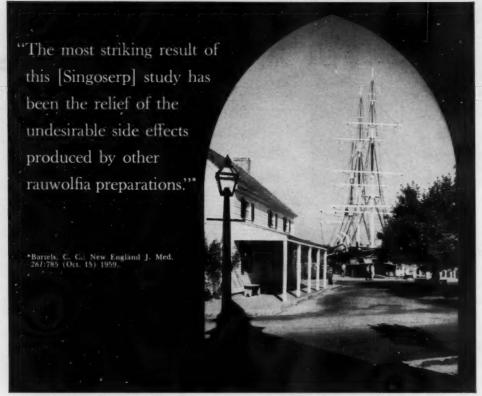
frequent one in the administration of anesthetics. The customary proper practice is for the anesthetist to keep his hand under the patient's chin at all times during the administration of anesthesia so as to detect any movement indicating the beginning of vomiting.

Further testimony at the trial established that the nurse had not been given any instruction as to the type of anesthesia to be used. No inquiry had been made of the patient as to whether she had partaken of any food before the anesthesia. And at no time after the mask had been placed on the patient's face did the nurse lay her hand on or near the mask, but remained seated by the delivery table.

At the termination of the trial the jury returned a verdict in favor of the administrator against the physician for \$60,000. The nurse-anesthetist and the hospital were left scot-free.

On an appeal taken, how would you decide? (Answer on page 223a)

from the New England Journal of Medicine:



results you can confirm in your practice:

"In 24 cases syrosingopine was substituted for the rauwolfia product because of 26 troublesome side effects; these symptoms were relieved in all but 3 patients."*

Side Effects	Incidence with Prior Rauwolfia Agent	Incidence with Singoserp
Depression	11	1
Lethargy or fatigue	5	0
Nasal congestion	7	0
Gastrointestinal disturbances	2	2
Conjunctivitis	1	0

(Adapted from Bartels*)

many hypertensive patients prefer

Singoserp[®] (syrosingopine CIBA)

because it lowers their blood pressure without rauwolfia side effects

Tablets, 1 mg. (white, scored); bottles of 100.

C I B A

Complete information available on request.

a new infant formula nearer to **Enfamil** mother's milk in Infant formula nutritional breadth and balance Enfamil

HEARER to mother's milk . . . in caloric distribution of protein, fat and carbohydrate **HEARER** to mother's milk . . . in vitamin pattern

(vitamin D added in accordance with NRC recommendations)
NEARER to mother's milk . . . in osmolar load

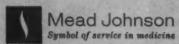
ENFAMIL IS ALMOST IDENTICAL to mother's milk in . . .

• ratio of unsaturated to saturated fatty acids

• absence of measurable curd tension . . . enhances digestibility

Enfamil contains oleo and vegetable fats . . . does not result in sour regurgitation

*Trademark



EQUILIBRIUM FOR THE EPILEPTIC

An epileptic child can develop a normal, balanced outlook. Better control of seizures and the emotional support of "physician-educated" parents can be of great help to him before he starts school.

MEBARAL is highly effective. In most types of epilepsy, especially major motor seizures in children, Mebaral reduces the number and severity of seizures—without producing sedative daze. Its use does not tend to lower learning capacity in children.

MEBARAL is unsurpassed in safety. Even when used year after year, toxic reactions or ill effects from Mebaral are rare. Mebaral is one of the best tolerated and "...least upsetting of all forms of therapy" for most types of epilepsy.

MEBROIN® is a synergistic combination of Mebaral and diphenylhydantoin that affords maximal control of seizures with minimal toxicity. Side effects are infrequent. Each relatively tasteless tablet combines 90 mg. of Mebaral with 60 mg. of diphenylhydantoin.

MEBARAL dosage: Children under 5 years, from $\frac{1}{4}$ to $\frac{1}{2}$ grain three or four times daily; over 5 years, from $\frac{1}{2}$ to 1 grain three or four times daily. Adults, from 6 to 9 grains daily.

MEBROIN dosage: Children under 6 years, ½ tablet once or twice daily; over 6 years, 1 tablet two or three times daily. Adults, 1 or 2 tablets three times daily (average dosage).

FOR EPILEPSY AT ANY AGE MEBARAL

How Supplied: Mebaral tasteless tablets of 200 mg. (3 grains), 100 mg. (1½ grains), 50 mg. (¾ grain), and 32 mg. (½ grain). Bottles of 100.

Mebroin virtually tasteless tablets. Bottles of 100.

Winthrop
LABORATORIES
New York 18, N. Y.

Mebaral (brand of mephobarbital) and Mebroin, trademarks reg. U. S. Pat. Off,
1. Robertson, E. G.: Postgrad, Med. 25:31, Jan., 1959.

3437H



Anturan brand of sulfinpyrazone

By vastly increasing the excretion of uric acid Anturan directly counter-

balances the basic metabolic defect

Clinical experience shows that Anturan: Prevents new tophus formation—causes absorption of pre-existing tophi.^{1,2}

in gout.

Reduces the incidence and severity of acute attacks after the first few weeks of treatment.^{3,4}

Relieves interval pain^{2,4}—reduces joint swelling³—improves mobility.²

References:
1. Yü, T. F., Burns, J. J., and Gutman, A. B.:
Arth. & Rheumat. 1:532, 1958. 2. Gutman,
A. B., and Yü, T. F.: Bull. N. Y. Acad. Med.
34:287, 1958. 3. Kersley, G. D., Cook, E. R.,
and Tovey, D. C. J.: Ann. Rheumat. Dis.
17:326, 1958. 4. Ogryzlo, M. A., and Harrison,
J.: Ann. Rheumat. Dis. 16:425, 1957.

Anturan T.M., brand of sulfinpyrazone: scored tablets of 100 mg. in bottle of 100.

Detailed Literature on Request.

Geigy, Ardsley, New York



halting the progress of gout

by potent uncosuric action



Geigy

New!...for appetite control



Helps stop overeating

CURBS APPETITE ... RELIEVES DIET TENSIONS

This new anorectic gives you dextroamphetamine to curb your patient's appetite. It also gives you Miltown to relieve the tensions of dieting which undermine her will power.

Usual dosage: 1 or 2 tablets one-half to 1 hour before meals.

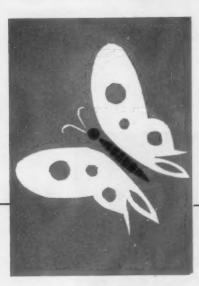
Each tablet contains: 5 mg. dextro-amphetamine sulfate and 400 mg. Miltown (meprobamate, Wallace).

Available: Bottles of 50 pink, scored tablets.

In prescribing Appetrol, you will find that your patient's bad eating habits are considerably improved—and that she will stay on the diet you prescribe.

Appetrol®

WALLACE LABORATORIES / New Brunswick, N. J.



AFTER HOURS

Photographs with brief description of your hobby will be welcomed. A conversation-piece desk ornament . . . an imported, wooden (handcarved) physician figurine . . . will be sent for each accepted contribution.



Dr. Kraning about to head out for some angling and relaxation.

My husband is a doctor—the General Practitioner kind,
A more wonderful man or finer doctor 'twould be hard to find!
His hours are long and very arduous ones,
But he knows what to do when a spare moment comes!
Fishing is the big love of his life
It does a great deal to ease the hours of strain and strife.
Our home is on a "great" Hoosier lake
A long trip for his sport he need never take.
He steps in his boat and is off like a flash to relax out there;
Unless or until a patient might need emergency care!
He recommends this method sincerely as a way to save the heart
And obtains a "loot" of which favorite patients share a part!
I admit it isn't much for the "telephone wife" to share—
But as long as he is healthy and happy, why should she care?

MRS. KENNETH KRANING Culver, Indiana



BARD-PARKER STERILE BLADES

> desired - help protect these traditionally Professional Pack holds 6 Sterile Blade

> And, time tested B P RIB BACK Blades are also available in the RACK PACK package

Ask your dealer



ARD-PARKER COMPANY, INC.
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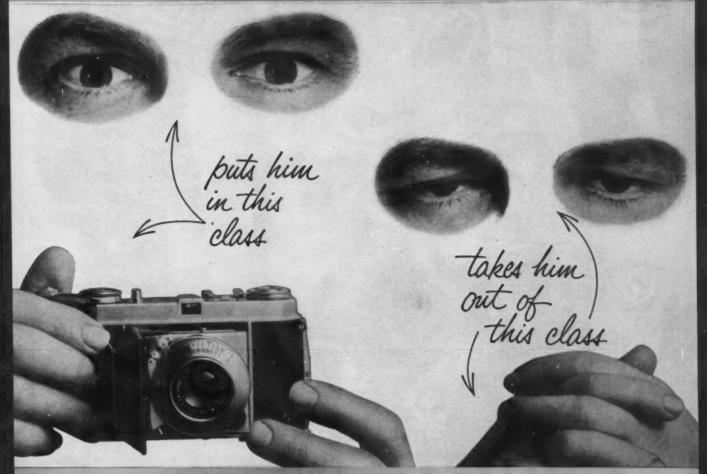
NEW

ANTIHISTAMINE DOES FOR YOUR PATIENT

ANTI-ALLERGIC SIDE EFFECTS

Twiston

Retexamine



TWISTON-the NEW "TAILOR-MADE" ANTIHISTAMINE-

has been designed to provide full symptom-control—yet side effects, particularly drowsiness, are negligible or absent.

- No toxicity has been reported with TWISTON
- · Keeps patient symptom-free, alert-with unusually low dosage

available dosage forms: Tablets TWISTON, 2 mg. Tablets TWISTON R-A, 4 mg. (Repeat Action Tablets) usual dosage:
TWISTON
Adults: 1 to 2 tablets t.l.d. or q.l.d.
Children: 1/2 to 1 tablet t.l.d. or q.l.d.
TWISTON R-A
Adults: 1 tablet q. 3 to 12 hours,

McNEIL

MCNEIL LABORATORIES, INC., Philadelphia 32, Pa.

*Trade-mark U.S. Patent Pending



when emotional turbulence threatens medical or surgical care

Fear, agitation, and resistance often hinder medical diagnosis and treatment.

Sparine alleviates agitation, overcomes resistance, placates fears.

In addition to calming the patient, SPARINE controls other interfering symptoms: nausea, vomiting, and hiccups.

Wyeth Laboratories, Philadelphia 1, Pa.

Sparine (1)

Promazine Hydrochloride, Wyeth

INJECTION TABLETS SYRUP



A Century of Service to Medicine

Armour Pharmaceutical Company Announces a New Systemic Enzyme Chymoral

AM PLEASED to inform you of the latest development of our Company's research.

To the expanding field of systemic antiinflammatory enzymes we are introducing Chymoral. It is a specially coated tablet specifically designed for intestinal absorption. The activity is supplied by a purified concentration which has specific trypsin and chymotrypsin activity in a ratio of approximately six to one.

During past months, clinical investigators have evaluated Chymoral in a wide range of inflammatory conditions. They have reported to us as well as to the medical journals on the therapeutic response, convenience and safety of this oral form.

Patients have responded very well on a Chymoral dosage schedule of 2 tablets q.i.d. and one tablet q.i.d. for maintenance. Important, too, is the fact that where other therapeutic agents were used there were no incompatibilities.

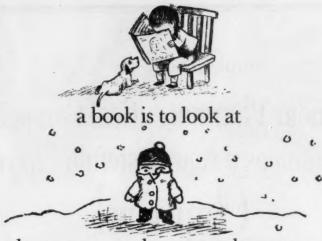
Chymoral is indicated in a wide range of inflammatory conditions to control inflammation, curtail swelling and curb pain.

If you would care to review some of the published reports on Chymoral we shall be happy to send reprints of these papers to you.

Parent o Hound

Robert A. Hardt President

1. Beck, C.; Levine, A. J.; Davis, O. F., and Horwitz, B.: Clinical Studies with an Oral Anti-inflammatory Enzyme Preparation. Accepted for publication in Clin. Med. (March) 1960. 2. Billow, B. W.; Cabodevilla, A. M.; Stern, A.; Palm, A.; Robinson, M., and Paley, S. S.: Clinical Experiences with an Oral Anti-Inflammatory Enzyme for Intestinal Absorption. Accepted for publication in Southwestern Med. (May) 1960. 3. Teitel, L. H.; Siegel, S. J.; Tendler, J.; Reiser, P., and Harris, S. B.: Clinical Observations with Chymotrypsin in 306 Patients. Accepted for publication in Indust. Med. (April) 1960. 4. Clinical Reports to the Medical Dept., Armour Pharmaceutical Company, 1959. 5. Reich, W. J., and Nechtow, M. J.: Scientific Exhibit, Chicago Medical Society (March) 1960. 6. Taub, S. J.: Paper presented Annual Meeting, IIAK Medical Fraternity, Miami, Florida (March) 1960.



buttons are to keep people warm



cats are so you can have kittens



REDISOL is so kids have better appetites

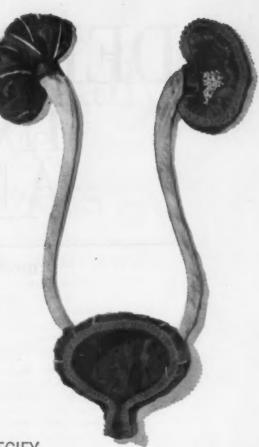
Redisol (Cyanocobalamin, crystalline vitamin B₁₂) often stimulates children's appetites with consequent weight gain. Tiny Redisol Tablets (25, 50, 100, 250 mcg.) dissolve instantly in the mouth, on food or in liquids. Also available: cherry-flavored Redisol Elixir (5 mcg. per 5-cc. teaspoonful); Redisol Injectable, cyanocobalamin injection USP (30 and 100 mcg. per cc., 10-cc. vials and 1000 mcg. per cc. in 1, 5 and 10-cc. vials).

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Just a "simple"
case of cystitis
may be the
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pyelonephritis'—
or may actually be
the first evidence
of a pre-existing
pyelonephritic
process.²



WHEN TREATING CYSTITIS-SPECIFY

FURADANTIN

brand of nitrofurantsin

FIRST

to ensure rapid control of infection throughout the urogenital system

Rapid bactericidal action against a wide range of gram-positive and gram-negative bacteria including organisms such as staphylococci, Proteus and certain strains of Pseudomonas, resistant to other agents actively excreted by the tubule cells in addition to glomerular filtration negligible development of bacterial resistance after 8 years of extensive clinical use excellent tolerance—no reports of injury to kidneys, liver and blood-forming organs well tolerated for long-term administration

AVERAGE FURADANTIN ADULT DOSAGE; 100 mg, q.i.d. with meals and with food or milk on retiring. Supplied: Tablets, 50 and 100 mg; Oral Suspension, 25 mg, per 5 cc. tsp.

REFERENCES: 1. Campbell, M. F.: Principles of Urology, Philadelphia, W. B. Saunders Co., 1957. 2. Colby, F. H.: Essential Urology, Baltimore, The Williams & Wilkins Co., 1953.

NITROFURANS—a unique class of antimicrobials—neither antibiotics nor sulfonamides

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DEPRESSION INDUCED ANXIETY

most commonly encountered in:

psychosomatic disorders chronic diseases other organic illnesses

most commonly expressed by:

nervousness
anorexia
tension fatigue states
sadness
somatic complaints
insomnia
apprehensiveness
irritability
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most effectively treated with:

a true antidepressant which relieves the depression-induced anxiety by alleviating the depression itself

Nardil

brand of phenelzine dihydrogen sulfate a true antidepressant—not a tranquilizer

the common problem basically unresponsive to tranquilizers

TYPICAL CASE HISTORIES FROM THE LITERATURE



"A 44-year-old housewife with symptoms of anxiety referable to her heart and stomach. All examinations were negative for the presence of organic disease...she had received 4 different tranquilizers."

On Nardil "the majority of her anxiety symptoms had disappeared. Later she remarked that she was 100% better....There has been no return of former complaints."*

*Hobbs, L. F.: Virginia Med. Monthly 86:692, 1959.



"Characteristically the patient complains of impaired appetite, insomnia, irritability, loss of attention and concentration, tendency to worry and marked irritability...treatments are usually built [in vain] around some sedative or tranquilizer....

With Nardil this condition is easily managed...by the practicing clinician."***

*Saint, A.: Dis. Nerv. System 20:537, 1959.

simple, economical, rapidly effective therapy



DOSAGE: 1 tablet three times a day.

SUPPLIED: Orange-coated tablets, each containing 15 mg. of phenylethylhydrazine present as the dihydrogen sulfate. Bottles of 100,

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A biochemical compound used to diminish intestinal gas in healthy persons and those patients having digestive disorders

KANULASE

Each Kanulase tablet contains Dorase® 320 units.combined with pepsin, N.F., 150 mg.; glutamic acid HCl, 200 mg.; pancreatin, N.F., 500 mg.; cybileextract, 100 mg. Dosage: 1 or 2 tablets at mealtime. Supplied: Bottles of 50 tablets.

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Letters to the Editor

This department is offered as an Open Forum for the discussion of topical medical issues. All letters must be signed. However, to protect the identity of writers who are invited to comment on controversial subjects, names will be omitted when requested.

On Socialistic Medicine

The article, "Semi-Socialized Medicine in Germany," by Dr. Dresen was the most important and horrible in its implications you have published in some time. Can you send me at least a dozen reprints? I intend sending them to my Congressmen and other influential persons.

I shall be glad to pay for whatever they may cost.

Sam F. Hartman, M.D. Beaumont, Texas

• We are now preparing reprints of Dr. Dresen's article and shall be glad to send you copies as soon as they are ready.

I have always been in general practice. Some years ago, when I was certain that our government was about to take over the practice of medicine, I listed myself a specialist in OB in the vain hope that my lot under socialistic medicine might be better than if I were GP. Please note the word "socialistic." The word "socialized" is very ambiguous in its meaning. From my experiences in giving lay-audience talks on the subject, I learned, also, that one could put more vinegar into his pronunciation of "socialistic." Try it. In your position as

Editor, you could do much to help make more universal the use of socialistic as a replacement for socialized medicine. "Socialistic" tells just what it is: the practice of medicine owned and operated by the government.

Lawrence T. Brown, M.D. Denver, Colorado

Third Degree

I am an avid reader of your excellent journal. However, in Alex Ross' March 1960 cover, there is something incongruous.

The diploma is made out to John G. (or C.) Fetz..., yet the bag has the initials H.A.R. Are there two doctors in the office or is this a slip of the artist?

Morris H. Geshwind, M.D. Brooklyn, New York

• We thank Dr. Geshwind and all the other alert readers who took time out to write us. Alex Ross humorously calls this discrepancy, "artistic license." The physician's office in Connecticut which he uses as his model actually had several physicians sharing space. The initials H.A.R. on the bag however, are the initials of Alex Ross' daughter who is studying medicine at the University of Pittsburgh Medical School.



even his fellow players might not know—if his seizures are adequately controlled with medication Seizures can be adequately controlled in well over 90 per cent of patients, who can then lead normal lives.

for enhanced control of seizures

DILANTIN Sodium (diphenythydantoin sodium, Parke-Davis) is available in several forms including Kapseals of 0.03 Gm, and of 0.1 Gm. in hottles of 100 and 1,000.

other members of THE PARKE-DAVIS FAMILY OF ANTICONVULSANTS

for grand mal and psychomotor seizures: PHELANTIN Kapseals (Dilantin 100 mg., phenobarbital 30 mg., desoxyephedrine hydrochloride 2.5 mg.), bottles of 100, for the petit mal triad: MILONTIN (phensusimide, Parke-Davis) Kapseals, 0.5 Gm., bottles of 100 and 1,000; Suspension, 250 mg. per 4 cc., 16-ounce bottles. CELONTIN Kapseals (methsusimide, Parke-Davis) 0.3 Gm., bottles of 100.

LITERATIEN SEPPLATION DETAILS OF POSAGE AND ADMINISTRATION AVAILABLE ON REQUEST.

Bibliographs: (I. Malthy, G. L. J. Maine M. A. 18:257, 1957, 12) Brog, P. E. Pediatries 23:151, 1959;

PARKE, DAVIS & COMPANY DETROIT 32, MICHIGAN

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CHELATED — like the iron of hemoglobin
... clinically confirmed as an effective hematinic¹
... with a built-in molecular barrier against
g.i. intolerance and systemic toxicity.¹¹² Permits
administration on empty stomach for greater iron
uptake... safeguards children against the
growing problem of accidental iron poisoning.¹¹³

oral iron
of the future...
prescribable
today



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ALL SAFE TO HAVE AROUND THE HOME

CHEL-IRON Tablets: each tablet provides equiv. 40 mg. elemental iron.

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as delivered by accompanying calibrated dropper.

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Also available: CHEL-IRON PLUS Tablets—chelated iron plus B₁₂, folic acid, other B vitamins, and C.

I. Franklin, M., et al.: Choiate Iron Therapy, J.A.M.A. 168:1685, 1958.
2, A.M.A. Council on Drugs: New and Monoffielal Drugs, J.A.M.A. 171:891, 1959.
3, A.M.A. Committee on Toxicology: Accidental Iron Poleoning in Children
J.A.M.A. 170:576, 19659.

KINNEY & COMPANY, INC. Columbus, Indiana



90.8. PAT. 2,075,611



Who Is This Doctor?

Identify the famous physician from clues in this brief biography

He was born in Almora, India, on May 13, 1857, the eldest of ten children of a British general.

He studied medicine at St. Bartholomew's Hospital in London and graduated in 1879. In 1881 he entered Indian Medical service after spending two years at sea as a ship's surgeon. Service obligations left him ample amount of free time which he used for writing literary works, composing music for several of Shelley's lyrics and reading the world's poets in German, French and Italian.

He returned to England and studied bacteriology—a new science at that time—acquiring a diploma in public health and a considerable knowledge of the most recent techniques in microscopy, incubation and preparation of culture media.

In 1892, in India, he commenced a series of special investigations on malaria and in 1895 produced experimental proof of the theory that malaria is spread by mosquitoes. Later he investigated the life cycle of the parasite.

He retired from Indian medical service in 1899 and became a professor of tropical medicine at the Liverpool University. He received the Nobel Prize for Medicine in 1902 and was knighted in 1911. In 1913 he became a professor for tropical diseases at Kings College, London, and later, director-in-chief of the Institute and Hospital for Tropical Disease which bore his name and was founded by the Prince of Wales.

During World War I he was War Office consultant in malarias and after the War a consultant for the Ministry of Pensions. Throughout his life he spent much time writing music, novels and other literary works, among them *Philosophies* (1910), *Psychologies* (1919), *The Revels of Orsera* (1920), *Memoirs* (1923) as well as mathematical and medical papers.

In his late years he was haunted by poverty. In 1932 his friends and admirers initiated a subscription fund to assure him a carefree old age. He was never able to take advantage of it as he died the same year (September 17, 1932) in London, at the age of 75. Can you name this doctor? Answer on page 223a.

FOR SIMULTANEOUS IMMUNIZATION AGAINST 4 DISEASES:

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PEDI-ANTICS



now you can immunize against more diseases...with fewer injections

Supplied: 9 cc. vials in clear plastic cartons. Package circular and material in vial can be examined without damaging carton. Expiration date is on vial for checking-even if carton is discarded.



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relief comes fast and comfortably

- does not produce autonomic side reactions
- does not impair mental efficiency, motor control, or normal behavior
- has not produced hypotension, Parkinson-like symptoms, agranulocytosis or jaundice

Usual Dosage: One or two 400 mg. tablets t.i.d.

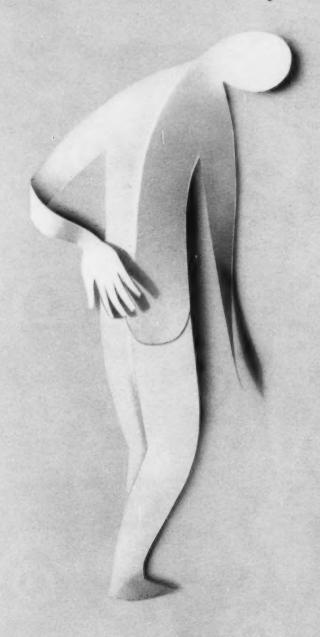
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets or as MEPROTABS* - 400 mg. unmarked,

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in the low back syndrome



relieves both stiffness and pain with safety... sustained effect

In 100 consecutive patients with the low back syndrome, Kestler¹ reported that particularly gratifying was the ability of Soma "to relax muscular spasm, relieve pain, and restore normal movement, thus speeding recovery in a large majority of the patients."

RESULTS WITH SOMA IN THE LOW BACK SYNDROME*

EXCELLENT TO VERY GOOD 68% GOOD TO FAIR 23.7%

*Investigators' reports to the Medical Department, Wallace Laboratories. (Total of 278 cases)

NOTABLE SAFETY—extremely low toxicity; no known contraindications; side effects are rare; drowsiness may occur, usually at higher dosage

RAPID ACTION - starts to act quickly SUSTAINED EFFECT-relief lasts up to 6 hours

EASY TO USE —usual adult dosage is one 350 mg. tablet 3 times daily and at bedtime

SUPPLIED —as white, coated, 350 mg. tablets, bottles of 50; also available for pediatric use: 250 mg., orange capsules, bottles of 50

1. Kestler, O.: In The Pharmacology and Clinical Usefulness of Carisoprodol, Wayne State University Press, Detroit, 1959. 2. Berger, F. M.; Kletzkin, M.; Ludwig, B. J.; Margolin, S., and Powell, L. S.; J. Pharm. Exp. Ther. 127:66 (Sept.) 1959. 3. Spears, C. E. and Phelps, W. M.: Arch. Pediat. 76:287 (July) 1959. 4. Phelps, W. M.: Arch. Pediat. 76:243 (June) 1959. 5. Friedman, A. P.; Frankel, K., and Fransway, R. L.: Papers presented at Scientific Meeting, New York State Society of Industrial Medicine, Inc., New York, Sept. 30, 1959. 6. Kuge, T.: Unpublished reports. 7. Ostrowski, J. P.: Orthopedics 2:7 (Jan.) 1960.

Literature and samples on request

Also available on request: The Pharmacology and Clinical Usefulness of Carisoprodol, Wayne State University Press, Detroit, 1959. (185 pages)





WALLACE LABORATORIES, New Brunswick, New Jersey



His ulcer should be protesting—he remains calm. His physician has prescribed ALUDROX SA because he knows the patient as well as the ulcer must be treated.

• calms emotional distress • promotes healing • reduces acid secretion • relieves pain • inhibits gastric motility

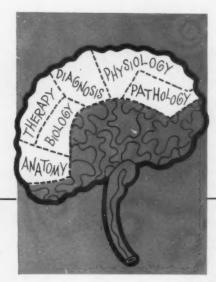
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Suspension and Tablets: Aluminum Hydroxide Gel with Magnesium Hydroxide, Ambutonium Bromide and Butabarbital, Wyeth

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A Century of Service to Medicine



Mediquiz

These questions were prepared especially for Medical Times by the Professional Examination Service, a division of the American Public Health Association, Answers will be found on page 223a.

- 1. Ischemic muscular atrophy (Volkmann's Contracture) most often follows injuries to the:
 - A) Hip.
 - B) Knee.
 - C) Shoulder.
 - D) Wrist.
 - E) Elbow.
- 2. Division of the tendinous insertion of the scalenus anticus muscle on the first rib has been advocated by some surgeons as the treatment of choice not only for the relief of the symptoms of the scalenus anticus syndrome but also for symptoms due to:
 - A) Herniated cervical nucleus pulposus.
 - B) Cervical rib.
 - C) The hyperabduction syndrome of Wright.
 - D) Congenital torticollis.
- E) Spontaneous thrombosis of the subclavian artery.
- 3. Due to the pull of the dorsal interosseous and the lumbrical muscles, the proximal fragment of the fractured proximal phalanx is usually:
 - A) Impacted into the distal fragment.
 - B) Laterally displaced.
 - C) Dorsally displaced.
 - D) Volarly displaced.
 - E) Not displaced at all.
- 4. The most common cause of hematemesis is:

- A) Carcinoma of the stomach.
- B) Esophageal varices.
- C) Diverticulum of the stomach.
- D) Peptic ulcer.
- E) Acute gastritis.
- 5. Experiments by Markowitz indicate that following ligation of the hepatic artery in dogs, it is possible to decrease the mortality and incidence of hepatic necrosis by:
 - A) Frequent large blood transfusions.
- B) Parenteral administration of protein hydrolysates.
- C) Ligation of the portal vein at the time of the original operation.
- D) Parenteral administration of antibiotics.
- E) Large doses of vitamins and a high protein diet.
- **6.** The primary pharmacodynamic action of digitalis on the failing heart is to:
- A) Cause increased conduction of impulses from the auricles to the ventricles.
- B) Increase the force of contraction and cause more complete ventricular emptying.
- C) Increase the amount and oxygen saturation of blood flow to the vagal nuclei in the brain stem.
- D) Increase the coronary blood flow in the region of the cardiac pacemaker.
- E) Reduce pulmonary edema by increasing diuresis.

Concluded on page 88a

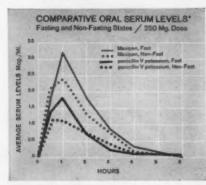
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MAXIMAL ABSORPTION Acid stable, extremely soluble. MAXIPEN is rapidly absorbed from the gastrointestinal tract.

MAXIMAL BLOOD LEVELS Substantially higher than potassium penicillin V (higher levels than with intramuscular procaine penicillin G). You get injection levels with a tablet.



*Based on 3294 individual serum antibiotic determinations. Complete details on request.

MAXIMAL FLEXIBILITY May be administered without regard to meals. However, highest absorption is achieved when taken just before or between meals.

MAXIMAL ORAL INDICATIONS Indicated in infections caused by streptococci, pneumococci, susceptible staphylococci, and gonococci, including:

pneumococcal pneumonia gonorrhea tonsillitis laryngitis otitis media streptococcal pharyngitis impetigo susceptible staphylococcal abscesses (with indicated surgery) cellulitis lymphangitis pyoderma

Also prophylactically in secondary infections following tonsillectomy, dental extractions, other surgical procedures.

Dosage: For moderately severe conditions, 125 to 250 mg. three times daily. For more severe conditions, 500 mg. as often as every four hours around the clock.

Note: To date, MAXIPEN has not shown less allergic reactions than older oral penicillins. Usual precautions regarding administration should be observed.

Supplied: MAXIPEN TABLETS, scored, 125 mg. (200,000 units) bottles of 36; 250 mg. (400,000 units) bottles of 24 and 100. MAXIPEN FOR ORAL SOLUTION; reconstituted each 5 cc. contains 125 mg., in 60 cc. bottles.

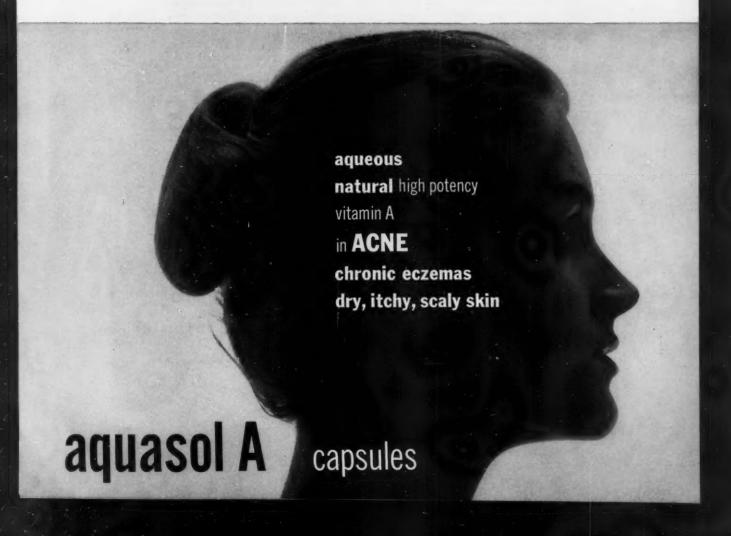
Triumph of Man Over Molecule Designed by Pfizer for Maximal Benefit



New York 17, N.Y. J. B. Roerig and Company Division, Chas. Pfiser & Co., Inc. Science for the World's Well-Being⁷⁸

- 7. If one finds a macrocytic anemia in a patient with congenital hemolytic jaundice, the clinical or laboratory finding with which this is usually best correlated is:
- A) The presence of coincidental anchlorhydria.
 - B) The size of the spleen.
- C) The degree of red cell fragility in hypotonic saline solutions.
 - D) A positive Coomb's test.
 - E) The severity of the anemia.
- **8.** A positive histamine test in a patient who has a pheochromocytoma would show:
- A) An immediate rise and then a fall in blood pressure.

- B) A sustained rise in blood pressure.
- C) No change in blood pressure.
- D) A sustained drop in blood pressure.
- E) An immediate fall and then a rise in blood pressure.
- 9. In large majority of cases (some authorities claim 95 percent) epistaxis comes from:
 - A) Kiesselbach's area.
 - B) The Agger nasi cell.
 - C) The superior turbinate.
 - D) The spheno-ethmoid recess.
 - E) The ethmoid bulla.
- **10.** The most common cause of chronic secondary hyperparathyroidism is:



- A) Chronic renal disease.
- B) Diabetes mellitus.
- C) Tumors of the parathyroid gland.
- D) Hyperthyroidism.
- E) Tumors of the anterior pituitary gland.
- 11. With which one of the following conditions is auricular fibrillation most rarely asso-
 - A) Luetic aortitis with aortic insufficiency.
 - B) Subacute bacterial endocarditis.
 - C) Coronary artery disease.
 - D) Hypertension.
 - E) Thyrotoxic heart disease.
- 12. A syndrome characterized by blueness of the extremities aggravated by cold, edema, profuse sweating of the volar surfaces and absence of ulceration is known as:
 - A) Erythromelalgia.
 - B) Erythema induratum.
 - C) Raynaud's disease.

- D) Livedo reticularis.
- E) Acrocyanosis.
- 13. A rare disease of the larynx which may be confused easily with carcinoma is:
 - A) Acute streptococcal laryngitis.
 - B) Laryngocele.
 - C) Syphilis.
 - D) Tuberculosis.
 - E) Actinomycosis.

(Answers on page 223a)

MEDIQUIZ REPRINTS AVAILABLE

Through the cooperation of the Professional Examination Service, Division of the American Public Health Association, special reprints of 150 Mediquiz questions and answers are now available in booklet form for \$1 per copy. To stimulate further study, the source of each answer is listed in the booklet. The supply of booklets is limited. To be certain you'll have a copy, send your dollar now to the Professional Examination Service Department MT-2, American Public Health Association, 1790 Broadway, New York 19, New York.

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more readily, rapidly, completely reaches the affected tissues because there is "greater diffusibility of vitamin A from aqueous dispersion into the tissues."1

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well tolerated - fish taste, odor and allergens are removed by special processing.

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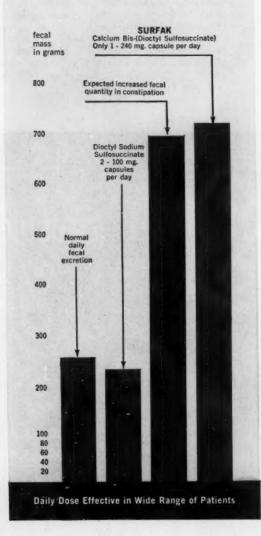
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25,000 U.S.P. units 50,000 U.S.P. units 100,000 U.S.P. units

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ONE SURFAK

Capsule softens up to 3 times the normal daily fecal excretion

Therapeutic effectiveness in constipation depends on a more complete softening of the increased fecal load. ONE Surfak capsule is all that is needed to soften fecal matter up to three times the normal daily fecal excretion.

This superior fecal softening effectiveness of Surfak is demonstrated in the chart shown, which indicates that a much wider range of patients—even those with severe constipation—can be successfully treated with only one capsule daily with usually complete freedom from side effects. Surfak is non-laxative, thus eliminating the "griping," flatulence, oily leakage or danger of habituation often associated with laxative therapy.

DOSAGE: One Surfak 240 mg. soft gelatin capsule daily for adults. Surfak 50 mg. soft gelatin capsules—for children, and adults with minimum needs, one to three daily.

SUPPLY: 240 mg.-bottles of 15 and 100. 50 mg.-bottles of 30 and 100.

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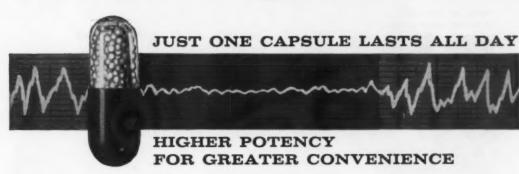
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- relieves both mental and muscular tension without causing depression
- does not impair mental efficiency, motor control, or normal behavior

Usual dosage: One capsule at breakfast, one capsule with evening meal

Available: Meprospan-400, each blue capsule contains 400 mg. Miltown (meprobamate)

Meprospan-200, each yellow capsule contains 200 mg. Miltown (meprobamate)

Both potencies in bottles of 30.

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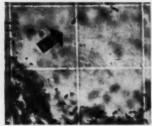
EME-BAIR

TWO STUDIES-ONE CONCLUSION:

Immolin VAGINAL CREAM-JEL

offers simple, effective conception control— without an occlusive device

Works on new principle to inhibit sperm migration



TRAPPED—This highly motile, viable sperm becomes nonre-productive the instant it contacts the outer edge of the IMMOLIN Cream-Jel matrix.



KILLED AND BURIED—The dead sperm is trapped deep in the IMMOLIN Cream-Jel matrix.

Study 1. Pregnancy rate: 2.01 per hundred woman-years of exposure

In a 28-month study totaling 1792 patient-months, Dr. Leopold Z. Goldstein' found that of 101 young, married, fertile women who relied exclusively on IMMOLIN Cream-Jel, only 3 unplanned pregnancies occurred—just 2.01 per hundred woman-years of exposure.

Study 2. Pregnancy rate: 3.2 per hundred woman-years of exposure

A pregnancy rate of 3.2 woman-years of exposure is now reported by Drs. Ruth Finkelstein and Raymond B. Goldberg² in a study of 176 women who for three years relied exclusively on IMMOLIN Cream-Jel, a period totaling 3354 patient-months.

IMMOLIN combines advantages of cream and jelly

Snowy white, dry, static and free of messiness, IMMOLIN Cream-Jel combines the soft, pleasant emollience of a cream with the smoothness of a jelly, yet minimizes overlubrication and leakage—increases motivation to use faithfully.

HOW SUPPLIED: #900 Package — 75 gram tube with improved measured-dose applicator and attractive, zippered plastic case. #905 Package — 75 gram tube only.

Goldstein, L. Z.: Obst. & Gynec. 19:133 (Aug.) 1957.
 Finkelstein, R., and Goldberg, R. B.: Am. J. Obst. & Gynec. 78:657 (Sept.) 1959.
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orally effective progestational therapy

NORLUTING (norethindrone, Parke-Davis)

in conditions involving deficiency of progesterone...

primary and secondary amenorrhea • menstrual irregularity • functional uterine bleeding • endocrine infertility • habitual abortion • threatened abortion • premenstrual tension • dysmenorrhea

PACKAGING: 5-mg. scored tablets, bottles of 30.

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PARKE-DAVIS





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... the classic drug for vertigo caused by labyrinthine disturbance.

Each scored, yellow tablet contains 50 mg. of dimenhydrinate, U.S.P. Average dose: 1 or 2 tablets 3 or 4 times daily.

Dramamine is available in 4 dosage forms: Tablets, Liquid, Supposicones® and Ampuls.

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dimenhydrinate with d-amphetamine sulfate

controls symptoms . . . improves mood Average dose: 1 tablet 2 or 3 times daily.

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MODERN MEDICINALS

These brief résumés of essential information on the newer medicinals, which are not yet listed in the various reference books, can be pasted on file cards. This file can be kept by the physician for ready reference.

Bio-Tosmosan HC Eardrops, Doho Chemical Co., New York, New York. Each 15 cc. bottle provides 18.966 Gm. anhydrous glycerol, 5.7 mg. neomycin (from sulfate), 7.6 mg. gramicidin, and 19 mg. hydrocortisone alcohol. Indicated for acute exacerbation secondary to suppurating otitis, external otitis, and allergic otitis. *Use:* After cleaning external canal instill eardrops until canal is filled, then plug with cotton. May also be administered with saturated wick, dropping 5-10 drops on wick two or three times daily for three days, then proceeding as directed by physician. *Sup:* Dropper-sealed brown bottles of 15 cc.

Centalex Elixir, Central Pharmacal Co., Seymour, Indiana. Each 5 ml. contains 100 mg. pentylenetetrazol, 1.67 mg. thiamine HCl, 7.5 mg. niacinamide, and 2.5 mcg. vitamin B₁₂. Indicated for treatment of abnormal behavior symptoms in the senile patient, generally related to cerebral arteriosclerosis. Dose: two teaspoonfuls three times daily after meals. Sup: Bottles of 1 pt. and 1 gal.

Cosa-Terrabon Pediatric Drops, Pfizer Laboratories, Division Chas. Pfizer & Co., Inc., Brooklyn, New York. Ready-to-use pediatric form of terramycin with glucosamine. Indicated for treatment of wide variety of common infections caused by susceptible organisms. *Dose:* Recommended daily dos-

age is 10 to 20 mg. (2-4 drops) per pound in divided doses. *Sup:* Dropper bottles of 10 cc., containing 100 mg. of Cosa-Terrabon per cc.

Cynal, Lloyd Brothers, Inc., Cincinnati, Ohio. Cherro-Chew tablets containing ion-exchange vitamin B₁₂ plus essential amounts of B₁ and B₆. Indicated for use in stimulating appetite, increasing food intake and helping to insure healthy growth. *Dose:* One tablet daily provides effective therapy with more than 5-fold the usual oral vitamin B₁₂ absorption. *Sup:* Bottles of 50.

Elipten, Ciba Pharmaceutical Products, Inc., Summit, New Jersey. An anticonvulsant indicated for most types of convulsive seizures, particularly petit mal, grand mal, psychomotor, and myoclonic seizures. *Dose:* Adults: Average therapeutic dose is 250 mg. t.i.d., but more severely ill epileptics may require 2 tabs t.i.d. *Sup:* White, scored tablets of 250 mg. in bottles of 100.

Fostril, Fostril-HC, Westwood Pharmaceuticals Div. Foster-Milburn Co., Buffalo, New York. Greaseless cream containing polyoxyethylene lauryl ether, sulfur and hexachlorophene. Also available as Fostril-HC containing, in addition, ½ % hydrocortisone. Indicated in the treatment of acne. *Use:* Individualized

Continued on page 100a

IN A WIDE RANGE OF COMMON SKIN DISORDERS

FURACIN-HC

CREAM

INFECTED AND POTENTIALLY INFECTED DERMATOSES / PYODERMAS / ULCERS BURNS / AFTER PLASTIC, ANORECTAL AND MINOR SURGERY





FURACIN-HC Cream combines the anti-inflammatory and antipruritic effect of hydrocortisone with the dependable antibacterial action of FURACIN®, brand of nitrofurazone-the most widely prescribed single topical antibacterial. The broad bactericidal range of FURACIN includes stubborn staphylococcal strains, and there has been no development of significant bacterial resistance after more than a dozen years of widespread clinical use. FURACIN is gentle to tissues, does not retard healing; its low sensitization rate is further minimized by the presence of hydrocortisone.

FURACIN-HC Cream is available in tubes of 5 Gm. and 20 Gm. Fine vanishing cream base, water-soluble.

NITROFURANS-a unique class of antimicrobials / EATON LABORATORIES, NORWICH, NEW YORK **Products of Eaton Research**

"It has been claimed that certain glycosides have less irritability upon the heart and might even be safer to use. Evidence to satisfy such claims hold true only if the digitalis preparation possesses a greater therapeutic range."*

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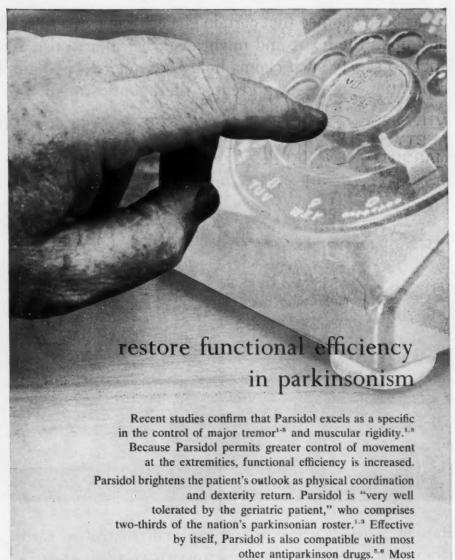


Gitaligin provides a maximum degree of control in cardiac therapy by reason of these distinctive clinical features ** WIDER SAFETY MARGIN . GREATER THERAPEUTIC RANGE FASTER RATE OF ELIMINATION THAN DIGITOXIN OR DIGITALIS LEAF It's easy to transfer patients to GITALIGIN-WITHOUT INTERRUPTION - 0.5 mg. Gitaligin is approximately equivalent to 0.1 Gm. digitalis leaf, 0.1 mg. digitoxin, and 0.5 mg. digoxin.

SUPPLIED: 0.5 mg. scored tablets - in bottles of 30 and 100. *Batterman, R. C.: Observations on the Clinical Use of Digitalis, in Diamond, E. G.: Digitalis, Springfield, Charles C WHITE LABORATORIES, INC. Thomas, 1957. **Bibliography available on request. †White's



KENILWORTH, NEW JERSEY brand of amorphous gitalin.



PARSIDOL® patients respond to a maintenance dosage of 50 mg. q.i.d.

brand of ethopropazine hydrochloride

PARKINSONISM

References: 1. Schwab, R. S.: Geriatrics 14:545 (Sept.) 1959. 2. England, A. C. and Schwab, R. S.: A.M.A. Int. Med. 104:439 (Sept.) 1959. 3. Schwab, R. S. and England, A. C.: J. Chron. Dis. 8:488 (Oct.) 1958. 4. Glaser, G. H.: Connecticut M. J.: 23:390 (June) 1959. 5. Doshay, L. J. et al.: J.A.M.A. 160:348 (Feb.) 1956. 6. Doshay, L. J. and Constable, K.: J.A.M.A. 170:37 (May) 1959.



EFFECTIVE THERAPY FOR TINEA PEDIS (ATHLETE'S FOOT) AND OTHER RINGWORM INFECTIONS

ORAL ANTIFUNGAL AGENT





Before treatment, T. rubrum infection.

After 2 months' treatment with GRIFULVIN.

typical response of tinea pedis to GRIFULVIN

- · itching and burning relieved in 2 to 6 days
- vesicles and scaly patches disappear completely; cultures and KOH scrapings usually become negative in 2 to 6 weeks
- . side effects are rare, mild and transitory

Average dose: 250 mg. q.i.d. Adjunctive treatment with topical keratolytic agents will aid in eradicating the fungi from the skin of the feet.

Supplied: 250 mg. scored tablets, colored aquamarine, imprinted McNEIL, bottles of 16 and 100.

Blank, H.; Smith, J. G., Jr.; Roth, F. J., Jr., and Zaias, N.: J.A.M.A. 171:2168 (Dec. 19) 1959. Photographs courtesy of Harvey Blank, M.D., Miami, Florida

MCNEIL LABORATORIES, INC . PHILADELPHIA 32, PA.

to suit the needs of each patient. Average acne patient will require 1 application daily for 4 to 7 days. Patients with extremely oily skin may require a second daily application. Sup: Fostril in tubes of 1½ oz., Fostril-HC in tubes of 25 Gm.

- Geriliquid, Lakeside Laboratories, Inc., Milwaukee, Wisconsin. Each teaspoonful (5 ml.) contains 75 mg. niacin and 750 mg. glycine in a sherry wine base. Indicated for sustained warming of cold hands and feet. *Dose:* 1 to 2 teaspoonsful three times daily before meals. *Sup:* Bottles of 8 oz.
- Lithitrol With Pyridoxine, Columbus Pharmacal Co., Columbus, Ohio. Tablets, each containing 1.66 mg. pyridoxine HCl, 250 mg. salicylamide, 250 mg. methenamine mandelate. Indicated for treatment of various chronic and recurrent urinary disorders requiring long term therapy. Also used to prevent formation of calculi in incipient cases. *Dose:* 2 tablets three or four times daily. *Sup:* Bottles of 100 and 1000.
- Metamucil Instant Mix, G. D. Searle & Co., Chicago, Illinois. Powder containing psyllium hydrophilic mucilloid with citric acid and sodium bicarbonate. Mixed instantly without stirring, forming an effervescent, lemon-flavored liquid. Indicated for constipation therapy in all age groups. Sup: Foilwrapped, premeasured-dose packets in boxes of 16.
- Modumate, Abbott Laboratories, North Chicago, Illinois. Sterile solution, each 100 ml. of which provides 13.5 Gm. of L-arginine and 12 Gm. of L-glutamic acid. Indicated for use in the treatment of ammonia intoxication due to hepatic failure. Not recommended for the management of hepatic dis-

orders in which blood levels of ammonia are relatively normal. *Dose:* Dilute contents of 100-ml. container of Modumate with 500 or 1000 ml. of 5% or 10% dextrose. Administer by intravenous infusion over a period of not less than one hour for 25 Gm. and not less than two hours for 50 Gm. An initial dose of 25 to 50 Gm. is recommended. Repeat after 8 hours if blood ammonia levels are still raised or coma persists. Severe cases may require repeated infusions for three to five days. *Sup:* 100-ml. sterile containers of 25% (w/v) solution in water for injection, packed individually or in cartons of 6.

- Mydriacyl, Alcon Laboratories, Inc., Fort Worth, Texas. Aqueous solution of bis-Tropamide available in two strengths, 0.5% and 1.0%. The 0.5% concentration is recommended for mydriasis, and the 1.0% is preferred for maximal cycloplegia. Clinical tests indicated that Mydriacyl gives a more rapid mydriasis and cycloplegia, acting in about 20 to 25 minutes and then allowing a faster return to normal. Sup: Either strength in drop-tainer bottles of 15 cc. and 7.5 cc.
- Prenausen, Walker Laboratories, Inc., Mount Vernon, New York. Troches containing therapeutic levels of pyridoxine and thiamine. Indicated in the treatment of nausea. *Dose:* Dissolve troche in mouth upon awakening, and thereafter whenever nausea threatens. *Sup:* Boxes of 24.
- Prolixin Elixir, E. R. Squibb & Sons, Division of Olin Mathieson Chemical Corp., New York, New York. New dosage form, each teaspoonful of which contains 2.5 mg. fluphenazine dihydrochloride. Indicated for use in a number of mental disorders, including

Concluded on page 106a



with a one week course of daily injections

Anergex—1 ml. daily for 6-8 days—usually provides prompt relief that persists for months.

Anergex—a specially prepared botanical extract—is nonspecific in action; it suppresses allergic manifestations regardless of the offending allergens. It is not a histamine antagonist, nor does it merely minimize the effects of a single allergen.

Anergex eliminates skin testing, long drawn-out desensitization procedures, and special diets. It has been effective even in patients who failed to respond to other therapeutic measures.

Reports on over 3,000 patients have shown that over 70% derived marked benefit or complete relief following a single short course of Anergex injections. Effective in seasonal and nonseasonal rhinitis (pollens, dust, dander, molds, foods); allergic asthma: asthmatic bronchitis and eczema in children; food sensitivities.

Available: Vials containing 8 ml.—one average treatment course. WRITE FOR REPRINTS AND LITERATURE

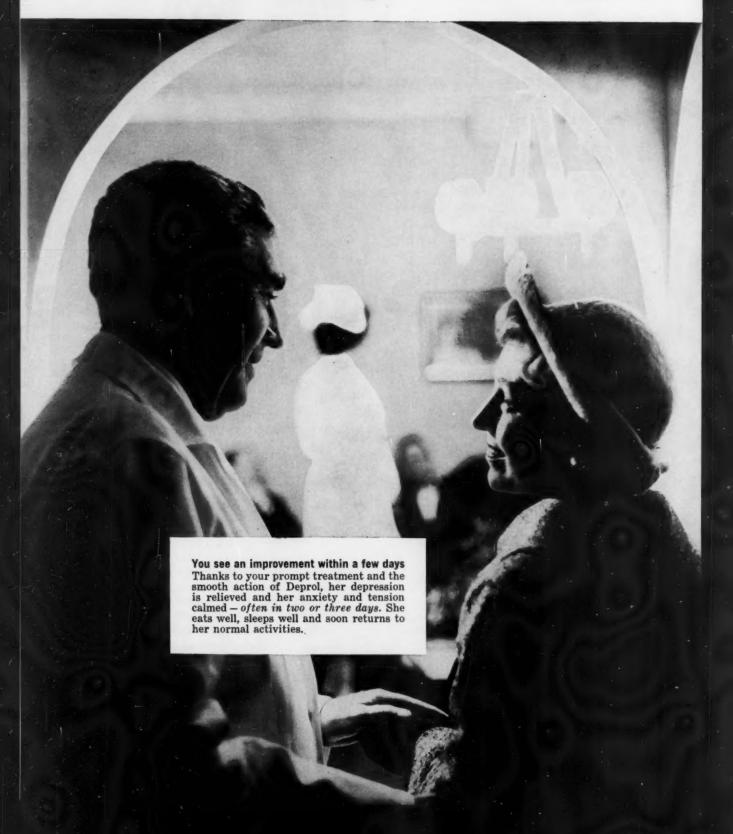
$\operatorname{ANERGEX}^*$

the new concept for the treatment of allergic diseases

MULFORD COLLOID LABORATORIES MULFORD PHILADELPHIA 4, PENNSYLVANIA



Lifts depression...



as it calms anxiety!

Smooth, balanced action lifts depression as it calms anxiety... rapidly and safely

Balances the mood - no "seesaw" effect of amphetamine-barbiturates and energizers. While amphetamines and energizers may stimulate the patient - they often aggravate anxiety and tension. And although amphetamine-barbiturate combinations may counteract excessive stimulation - they often deepen depression.

In contrast to such "seesaw" effects, Deprol lifts depression as it calms anxiety - both at the same

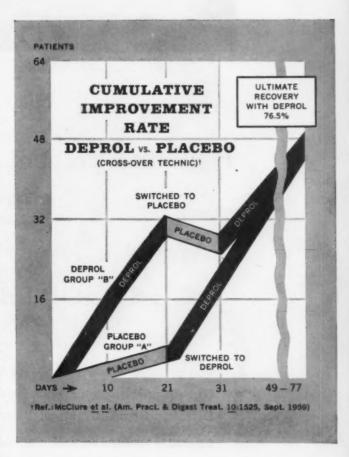
Acts swiftly - the patient often feels better, sleeps better, within two or three days. Unlike the delayed action of most other antidepressant drugs, which may take two to six weeks to bring results, Deprol relieves the patient quickly - often within two or

Acts safely - no danger of liver damage. Deprol does not produce liver damage, hypotension, psychotic reactions or changes in sexual function frequently reported with other antidepressant drugs.

BIBLIOGRAPHY (11 clinical studies, 764 patients):

BIBLIOGRAPHY (11 cissucal studies, 764 patients):

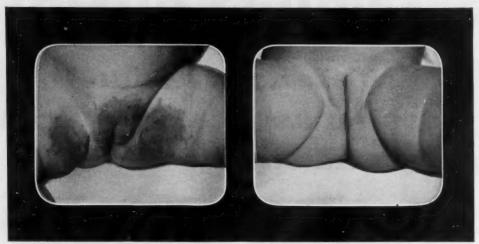
1. Alexander, I. (35 patients): Chemothercapy of depression — Use of meprobamate combined with benactyzine (2-diethylominoethyl benzilate) hydrochlorides, J.A.M.A. 166:1019, March 1, 1959. 2. Bateman, J. C. and Carlton, H. N. (50 patients): Meprobamate and benactyzine hydrochloride (Deprol) os adjunctive therapy for patients with advanced cancer. Anti-biotic Med. 8 Clin. Therapy 6:648, Nov. 1959. 3. Bell, J. L., Tauber, H., Santy, A. and Pullito, F. [77 patients]: Tracement of depressive states in office practice. Dis. Nerv. System 20:263, June 1959. 4. Brainer, C. (31 patients): On mental depression. Dis. Nerv. System 20:142, [Section Two), May 1959. 5. Landman, M. E. (30 patients): Choosing the right drug for the patient. Submitted for publication, 1960. 6. McClure, C. W., Henken, B. S., Wood, C. A. and Ceresio, G. B. (128 patients): Treatment of depression—New technics and therapy. Am. Pract. 2 Digest Treat. 10:1525, Sept. 1959. 7. Pannington, V. M. (135 patients): Meprobamate-benactyzine (Deprol) in the treatment of chronic brain syndrome, schizophrenia and sentility. J. Am. Geriatrics Soc. 7:656, Aug. 1959. 8. Rickels, K. and Ewing, J. H. (135 patients): Deprol in depressive conditions. Disposition of the patients of t 1. Alexander, L. (35 patients): Chemotherapy of depression



Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be gradually increased up to 3 tablets q.i.d. Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate Supplied: Bottles of 50 light-pink, scored tablets. Write for literature and samples.







Before application of White's Vitamin A & D Ointment—Typical diaper rash with excoriation of skin,

After application of White's Vitamin A & D Ointment at every diaper change—Diaper rash has completely disappeared within one week.

Heal and Prevent Diaper Rash with White's Vitamin A&D Ointment Apply at Every Diaper Change

HEALS • SOOTHES • PROTECTS

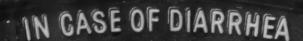
also beneficial for—Pressure Sores, Varicose and Chronic Ulcers; Nipple Care (fissured nipple); Episiotomy and Circumcision Wounds; Eczema, Detergent Dermatitis; Minor Burns and Wounds and Skin Abrasions.

Supplied in 11/2 and 4 oz. tubes; 1 lb. "nursery" jars and 5 lb. "ward" containers.

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Cremomycin, provides rapid relief of virtually all diarrheas

NEOMYCIN—rapidly bactericidal against most intestinal pathogens, but relatively ineffective against certain diarrhea-causing organisms.

SULFASUXIDINE® (succinylsulfathiazole)—an ideal adjunct to neomycin because it is highly effective against Clostridia and certain other neomycin-resistant organisms.

KAOLIN AND PECTIN—coat and soothe the inflamed mucosa, adsorb toxins, help reduce intestinal hypermotility, help provide rapid symptomatic relief.

For additional information, write Professional Services, Merck Sharp & Dohme, West Point, Pa.

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schizophrenia, mania and various psychoses. Dosage must be individualized as directed by physician. Sup: Calibrated dropper bottles of 60 cc., also bottles of 16 oz.

- Rectalad Disposable Enema, Wampole Laboratories, Stamford, Connecticut. Small plastic appliance containing glycerine potassium stearate and sodium dioctyl sulfosuccinate. Indicated in occasional constipation or where enema is otherwise indicated. *Use:* By rectum as needed. *Sup:* 2 cc. for children and 5 cc. for adults.
- Sebical Cream, Reed & Carnrick, Kenilworth, New Jersey. Combination of 2% allantoin, 2% coal tar extract, and 1% hexachlorophene in a highly penetrating greaseless base. Indicated for treatment of scalp dermatoses, especially seborrheas such as cradle cap in infants, and severe dandruff. *Use:* Topically, 3 times daily. *Sup:* Tubes of 2 oz.
- Syncillin Pediatric Drops, Bristol Laboratories, Syracuse, New York. Powder, which when reconstituted contains in each 0.6 cc. 125 mg. potassium alpha-phenoxyethyl penicillin. Indicated for treatment of penicillin-susceptible infections in infants and very young children. Provides immediate high blood levels of penicillin. *Dose:* As directed by physician. *Sup:* Bottles of 7.2 cc.
- Thiosulfil Forte, Ayerst Laboratories, New York, New York. Scored tablets, each containing 0.5 Grams sulfamethizole. Indicated for prolonged use in urinary tract infections. *Dose:* As directed by physician. *Sup:* Bottles of 100.

- Trypp Nose Drops, U. S. Vitamin & Pharmaceutical Corporation, New York, New York. Each 8 cc. provides 3 mg. trypsin, and 20 mg. phenylephrine HCl. Indicated as a dual approach in the relief of nasal congestion and stuffiness in colds, sinusitus, hay fever. Dose: Children, 1 to 2 drops of solution in each nostril; adults, 2 to 4 drops in each nostril. Repeat every 3 to 4 hours if necessary. Sup: Packages including an envelope of powder containing active ingredients, a bottle of liquid diluent, and a dropper.
- Vi-Daylin-M, Abbott Laboratories, North Chicago, Illinois. Candy-flavored syrup containing homogenized mixture of 11 vitamins, 8 minerals and an amino acid. Indicated as a nutritional supplement for infants and children. *Dose:* One teaspoonful daily. *Sup:* Bottles of 3 oz., 8 oz., and pt.
- Velacycline, E. R. Squibb & Sons, Division of Olin Mathieson Chemical Corp., New York, New York. Intramuscular vials contain either 150 or 350 mg. N-(pyrrolidinomethyl) tetracycline; 40 mg. lidocaine; 300 mg. ascorbic acid. Intravenous vials contain 700 mg. N-(pyrrolidinomethyl) tetracycline and 300 mg. ascorbic acid. Indicated wherever tetracycline is used-infections caused by Gram-positive and Gram-negative bacteria, spirochetes, etc. Dose: I.M.-Adults: Severe infections or to initiate therapy, 350 mg. b.i.d. or 150 mg. t.i.d. Maintenance, 350 mg. once daily or 150 mg. b.i.d. I.V.-Adults: 350 to 700 mg. every 12 hours. Children should receive proportionately less, according to body weight. Sup: I.M. in vials of 150 mg. and 350 mg. I.V. in vials of 700 mg.



NEEDED: THE APPETITE SUPPRESSANT STRONG ENOUGH AND SAFE ENOUGH TO DO THE JOB

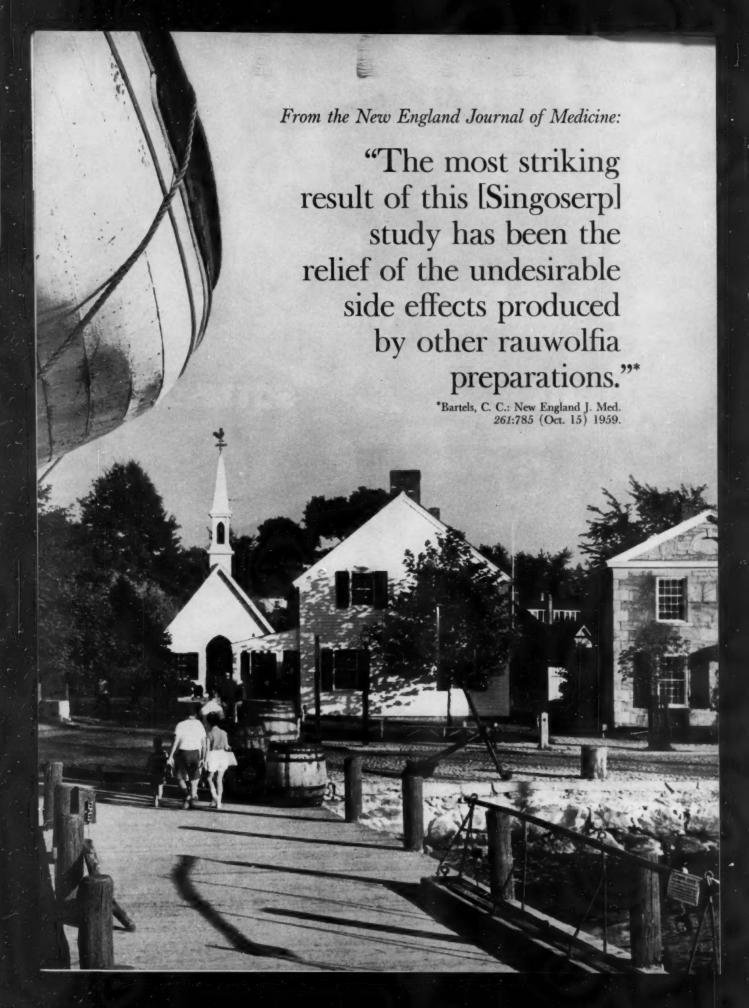
Ambar controls many cases of overeating/obesity refractory to usual therapy. To strengthen the will for successful dieting, the methamphetamine-phenobarbital in Ambar is designed to improve mood without harmful CNS overstimulation. Available in different forms to enable individualization of dosage: AMBAR #1 EXTENTABS,

10-12 hour extended action tablets, methamphetamine HCl 10.0 mg., phenobarbital 64.8 mg.

AMBAR #2 EXTENTABS, methamphetamine HCl
15.0 mg., phenobarbital 64.8 mg. Also conventional AMBAR TABLETS, methamphetamine 3.33 mg., phenobarbital 21.6 mg.

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Ambar #1 Extentabs / Ambar #2 Extentabs



Results you can confirm in your practice:

If you have ever treated a patient for hypertension with a rauwolfia preparation, you are no doubt familiar with the possible side effects of such medication — fatigue or lethargy, depression, nasal congestion, gastrointestinal distress, etc. But with Singoserp you can expect these improved results: "... when syrosingopine was substituted for the rauwolfia product, the blood-pressure response was equally good. In 24 cases syrosingopine was substituted for the rauwolfia product because of 26 troublesome side effects; these symptoms were relieved in all but 3 patients."*

Side Effects	Incidence with Prior Rauwolfia Agent	Incidence with Singoserp
Depression	11	1
Lethargy or fatigue	5	0
Nasal congestion	7	0
Gastrointestinal disturbances	2	2
Conjunctivitis	1	0

(Adapted from Bartels*)

many hypertensive patients prefer

Singoserpi (syrosingopine CIBA)

because it lowers their blood pressure without rauwolfia side effects (white, scored); bottles of 100. 2/2705MK C 1 B A SUMMIY. NEW JERSEY

Whatever the indication,* whatever degree of sedation desired, a form of Nembutal will meet the need





NEMBUTAL (PENTOBARBITAL, ABBOTT)

(Nothing Faster, Shorter-Acting, Safer in Barbiturate Therapy)

Vertebral Orthopaedic Conditions



EUGENE L. JEWETT, M.D., F.I.C.S., F.A.C.S. Orlando, Florida

The role of the general practitioner in handling the orthopaedic conditions affecting the spinal column may be nebulous and at times visionary, but also it may be a very real and most important factor in the welfare of such a patient.

In this age of specialists, orthopaedic consultants are, in practically every instance, just around the corner but they are often overworked and it is often difficult to channel all of the patients who should be seen by them into their offices. The general practitioner performs such a channeling service and his judgement is most important in determining who should and who should not see an orthopaedic consultant.

Value of X-Rays

X-rays should be taken whenever any suspicion of a vertebral abnormality or disease is suspected. Be sure and have both the anteroposterior and lateral x-rays taken and, of course, have them read by a roentgenologist, if possible. If not, interpret them yourself, to the best of your ability, and then call for a roentgenologist or an orthopaedic consultation

if indicated. Do not hesitate to have oblique x-rays taken, as often they are of more importance than the other views. At all times try to have the best x-rays possible, because even with very good plates at times a diagnosis is difficult to make. A great many pathological conditions of the spine are missed, at least for the time being, because of inadequate x-rays, both as regards quality and quantity. Especially is this important in the field of trauma where there are so many litigation and compensation problems to be dealt with. I cannot emphasize too strongly the importance of good, adequate x-rays, which are becoming more and more important in the practice of medicine.

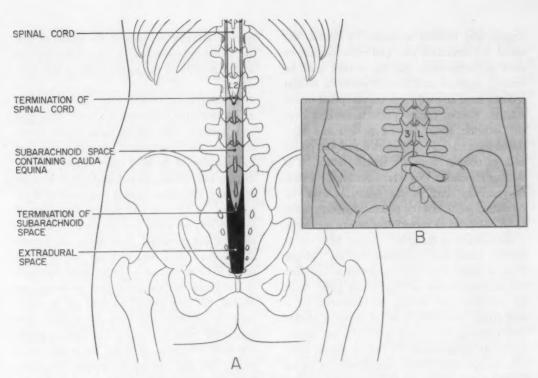
Scolioses (Post-Polio and idiopathic).
 Single, uncompensated curvatures of the spine

From the Jewett-Wright Orthopaedic Clinic, Orlando, Florida.

generally disappear when the patient bends forward toward the floor and, if such is the case, there is a good chance that orthopaedic treatment can prevent this becoming worse and, in fact, correct it completely. However, when we have double curves, or in some instances triple curves, the curves do not disappear when the patient bends forward, although the back may get a little straighter. Another test for these scolioses is to lift the patient up from the floor by the head, or suspend him from the floor in a head halter-overhead suspension arrangement. Here again, the single curve will usually disappear but not so with the double or triple curves. These multiple curves are ordinarily termed compensated curves, especially if the general alignment is good and the shoulder and iliac crests are about level when the patient stands up.

All of these conditions warrant an orthopaedic consultation but I think a few remarks about these spinal states will be in order. The usual, well-marked congenital deformities of the spine are very obvious and present no diagnostic problem, but the changes in the spine following poliomyelitis can often go unnoticed for many years, especially if there is no marked curvature or the curvature is well compensated and there is no definite abnormal level of the shoulders or prominences of either iliac crest or hip region. An idiopathic scoliosis in the adolescent child, which affects the girls more often than the boys, is often first noticed by prominence of one breast region over the other as the girl enters puberty. Also, the initial evidence of this condition may be a slight increasing prominence of one of the scapulae-"winging"-or one shoulder may be lower than the other. Often, the child is brought in by the mother or father because of what they think is unequal growth in the lower extremities giving rise to a prominence of one iliac crest and hip region over the other. Most of these conditions are due to a tilt of the pelvis, secondary to a spinal curvature, but leg length must be carefully checked and the best method is by x-ray measurement. All of these children should have their thoracic and lumbar spines x-rayed and also the pelvis and both hips, and at times the cervical area as well. Be sure and have anteroposterior views with the child standing, as well as lying down, because generally the curvature is more marked when the child is in the upright position.

- Scoliosis from unequal leg length. Generally this type of scoliosis is easy to recognize because the child has had poliomyelitis, an osteomyelitis or a traumatic injury to one of the lower extremities, or a growth disturbance of one or more bones of either or both of the lower extremities. There are many conditions which can lead to either retardation or increase in growth of these bones, and any of these can result in a scoliosis, if proper measures are not taken to equalize the length of the lower extremities as the child grows.
- CONGENITAL DEFORMITIES OF THE SPINE, LEADING TO A SCOLIOSIS OR A KYPHO-SCOLIOSIS. These conditions are only recognized by x-ray and include such states as hemi-vertebrae, Klippel-Feil syndrome, and other similar abnormal formations of the spine. Generally, these conditions are found in the cervical or thoracic spine, but at times are present in the lumbar spine.
- SCHEUERMANN'S ADOLESCENT EPIPHYSITIS. This condition is a fairly common one, affecting generally adolescent girls, and almost always the mother will bring in the girl because she is getting stooped or round-shouldered and the mother wants some sort of a shoulder strap or brace to help keep her shoulders back. The anteroposterior x-rays in these cases are almost always negative but the lateral thoracic x-ray will show slight increase in the normal thoracic kyphosis with epiphyseal changes of the involved vertebral bodies and often slight wedging of these bodies in the region of the kyphosis. This condition can be associated with or without pain in the thoracic area but, in its incipiency, it is not a very disabling or painful condition. The treatment for this is threefold: namely, an orthopaedic mattress or a board under an ordinary mattress, corrective exercises, well supervised by a physical therapist and at times the wearing of a hyperexten-



A. Diagrammatic illustration to show level of inferior extremity of the spinal cord and the lowest level of the subarachnoid space. B. Spinal puncture in lumbar area—this area is occupied by the fibers of the cauda equina and the spinal cord proper cannot be injured by introduction of a needle.

sion back brace when the child is up and about. Such a brace need not be worn at night and does not have to be worn all the time, but it does help the patient to maintain a good posture and relieves a lot of the strain on the patient's back, which is undergoing this abnormal growth process. This brace does not need to be worn in all cases, but where the patient cannot maintain a good posture by himself or herself, a hyperextension brace certainly does play a definite helpful part. The Taylortype brace, with or without shoulder straps, usually is of very little, if any, use in this condition, as it does not maintain hyperextension. If the back is held correctly by the hyperextension brace and the child exercises well and regularly, the shoulder girdles will take care of themselves. Swimming is a very good exercise for these children and certain sports are also useful, but contact athletics and anything which aggravates the pain or spasm in the back should not be permitted. Generally, the acetyl-salicyclic acid compounds will be all that is needed for pain. Usually, special diets are not needed but the exercises, firm mattress and, at times, the hyperextension brace should be continued until the entire process has run its course (this may continue until the spine stops growing) and then there is no danger of it leading to any further kyphosis.

• ARTHRITIS: (ATROPHIC, INFECTIOUS OR ANKYLOSING). This condition generally falls into the field of internal medicine but in the spine it often becomes an orthopaedic problem as well. The usual measures employed for arthritis in other parts of the body apply, by and large, to the spine. However, the diagnosis of an early atrophic or infectious type of arthritis in the spine, especially if it is of the Marie-Strümpell type, is often, in the early

stages, very difficult to make. Of course, the blood sedimentation rate and other laboratory tests are important, but the x-rays may be entirely negative until several weeks or several months have elapsed after the inception of the disease. Spasm, trigger point tenderness over the arthritic areas, limited motion and nocturnal pain are very important diagnostic points and, of course, there are several others. It is well to remember that Marie-Strümpell arthritis generally starts in the ligaments over the sacroiliac joints and the process generally leads to an ankylosis of these joints before spreading proximalward in the spine. X-rays here are of definite value, and remember that the oblique films at times show this condition better than the anteroposterior or the lateral ones. Such an involved back should be supported by a well-fitting spinal brace or, at times, a plaster cast (although the latter is usually not necessary). At nighttime such a patient should sleep on a hard mattress with a board under it, or on an orthopaedic mattress. Local injections of the analgesics, combined with one of the hydrocortone acetate compounds, is of definite value and oftentimes will result in relief of pain for several days or weeks. This pain relief following injection into an involved sacroiliac joint is every now and then a dramatic diagnostic measure, especially with the very early stage of the disease. Everything should be done to prevent, if possible, the spread of this condition upward into the lumbar, thoracic or cervical areas. Also, in such a condition, every effort should be made to keep the back as straight as possible and to prevent the often seen increasing and very disabling kyphosis. In this condition plaster casts generally have to be applied regularly and sometimes wedged in order to prevent an increasing deformity. However, an adequate well-fitting hyperextension brace, if it is of the right type and construction, will be just as efficacious as a plaster body cast. In this condition, exercises up to the point of pain tolerance are most important and every effort should be made to keep as good a vital capacity in the thoracic cage as possible. The various therapeutic and palliative measures for this type of arthritis are outside the realm of this discussion but remember that x-ray therapy has a high priority in the acute phase of this condition.

- ARTHRITIS (HYPERTROPHIC OR NON-INFEC-TIOUS AND NON-ANKYLOSING TYPE). This type of arthritis is what we all have in our spines after we are middle-aged, but the size and configuration of the bony spurs do not bear any definite relationship to the amount of pain or disability. Exercises are very important in these patients, as stiffness and painful limitation of motion sets in early and becomes quite disabling if not corrected. Here again, the patient should sleep on a firm mattress with a board under it, or at least on an orthopaedic mattress, and at times lumbosacral corsets or braces are needed, but they should be used just as sparingly as possible and only when they give temporary relief from pain. The medical problem here, of course, is to put the patient on a proper diet and regulate the weight. Exercises, proper posture and correct shoes are very important.
- ARTHRITIS (UNUSUAL FORMS). We must always be on guard for that rare condition, the typhoid spine, which used to be prevalent and is very seldom seen now. In a similar category, a spondylitis from undulant fever is met with every now and then. These two conditions in the back ordinarily need only proper support and the control of pain, at the same time that the medical aspects are brought under control. A Charcot spine is very rare but must be kept in mind, especially when a paraplegia develops from no apparent cause. The blood tests and proper x-rays usually suffice for this diagnosis. Tuberculosis and ostemyelitis of the spine are generally orthopaedic problems but the diagnosis is often made by the general practitioner, who also has a definte part to play in the medical control and follow-up care of these patients.
- TUMORS AND CYSTS OF THE SPINE. Early diagnosis of these more or less rare conditions of the vertebral column are generally made by the general practitioner who then, of course, turns the patient over to the proper specialist.

Any pain in the back, coming on any time after resection of a carcinoma of the prostate or excision of any other malignant tumor in any part of the body, should arouse the suspicions of the general practitioner and lead to x-rays of the spine. Multiple myeloma occasionally is first diagnosed by x-rays of the spine for a painful back. This x-ray diagnosis must be checked by other measures such as a sternal puncture bone marrow examination and/or other measures.

• SENILE OSTEOPOROSIS OF THE SPINE. This condition is relatively common and will become more so as longevity increases. Vague pains in the back, with or without definite localization, should always make the doctor suspicious of this condition. In the early stages, x-rays do not show any osteoporosis but generally the doctor does not see such a patient at this time. In the more advanced case collapse of one or more vertebral bodies will be often seen and where this is quite marked, especially with anterior wedging and a noticeable kyphosis, the patient should be put to bed on either a flat, hard mattress or a reversed Gatch bed with slight hyperextension under the lumbar spine. Usually this collapse has been going on for quite some time, unless the patient has had a recent, sudden twist or strain of the back. In such an already fixed collapse, a reduction of this wedging is very difficult to obtain, even by pronounced hyperextension. In any event, the patient should be made ambulatory as soon as possible, with the back supported by a wellfitting hyperextension brace. A plaster cast is too heavy and cumbersome for an older person and a suitable hyperextension brace will do all that a cast would do, and it can be removed at night and put on and off at will. Sometimes this brace has to be worn for several months, or even years, but as the patient's pain and spasm disappear, the brace can be gradually discarded and worn only when indicated or desired. An orthopaedic corset should be substituted when the patient is ambulatory. During all of this time adequate medical measures should be undertaken, although it may take months before any definite x-ray evidence of improvement in the density of the vertebrae can be seen. Hormone therapy is a very important part of this treatment, although with the very aged it must be given with caution. At times there will be a progression of more of the vertebral bodies becoming involved with wedging or "pancaking," in spite of everything that can be done. Such a patient may have to be kept in bed for some time but this period should be kept to an absolute minimum. All efforts should be kept up, however, to prevent the spine from becoming more kyphotic. Of course, if there is evidence of any spinal cord or nerve root pressure, an orthopaedist or a neurosurgeon should be called in, and sometimes both are needed.

• FRACTURES OF THE SPINE - COMPRESSION OR WEDGED FRACTURES OF THE VERTEBRAL BODIES. Traumatic injuries of the spine, if they are at all serious, are of course a definite reason for an orthopaedic or neurosurgical consultation at the earliest possible moment. However, there are certain uncomplicated (by this I mean without involvement of cord or root) fractures of the lower thoracic or lumbar spine, which can be taken care of by the general practitioner, at least in the beginning and perhaps throughout the entire course of this condition. Many general practitioners do not have an orthopaedic or other consultant near at hand and they must take care of the not-too-serious fractures of the back. Such patients must be taken to the hospital by ambulance as soon as possible, with the back kept absolutely straight or flat. When in the hospital x-rays should be taken, again taking great care to keep the spine from becoming flexed, rotated or twisted. Oblique films are often necessary to tell whether or not there are pedicle or facet fractures. Localized kyphosis, pain, tenderness or muscle spasm will tell the area or areas to be x-rayed and it is always well to be on the safe side and x-ray the entire lumbar and thoracic areas, if there is any suspicion of injury to either area. At times there will be so much more pain at one level that a minimal fracture at another level may be missed, unless a careful examination is made.

Uncomplicated fractures in the lower half of

the thoracic and the entire lumbar spine are certainly best taken care of by an orthopaedist, if he is available. If not, the fractures can be reduced, or at least partially reduced, by putting the patient on a reversed Gatch bed and then gradually raising the Gatch part a little, several times a day, until the maximum reduction has been obtained. On this bed the patient may turn from side to side or lie on his back but, of course, should never be allowed to turn on his abdomen in the prone position. One or two pillows may be placed under the head but the shoulders should at all times be on the bed when he is recumbent and the same thing applies to the buttocks. When the patient is recumbent, the knees may be raised on pillows, if desired. When a reduction is complete and checked by portable lateral x-rays, the patient should be made ambulatory at once in a wellfitting hyperextension brace, which will do everything that a hyperextension plaster of Paris jacket will do and, at times, do it better. This brace is made from measurements of the patient's body and can usually be ready for wear in a day or two. This is the same brace that has been previously mentioned in the treatment of Scheuermann's condition and senile osteoporosis. Generally the patient should keep this brace on until the fracture is completely, solidly healed, which is between three and six months, in the average patient. When sitting up or lying down on his back with the brace on, the patient should always have a small pillow under the lumbar pad of the brace, which takes a great deal of pressure away from the anterior pubic and sternal pads of the brace. Of course, the patient should sleep on a firm mattress with a board under it and the brace is worn continually day and night until healing is complete. As in the case of a plaster cast, the brace must be regularly checked by the doctor to see that no pressure sores develop and that the desired hyperextension is maintained. Generally, x-rays should be taken at about monthly intervals and when the involved fractured vertebral body is healed, it is best to have the patient wear an orthopaedic corset reinforced with stays, which can be used alternatively with the brace over a period of from two to three months. All during this ambulatory period, the patient can be put on hyperextension exercises which can be done very well even while wearing the brace.

- FRACTURES OF THE SPINE TRANSVERSE PROCESSES. Fractures of the transverse processes in the lumbar spine are fairly common and can be produced by either direct or indirect trauma. Usually they are not too serious a problem and they do not even require immobilization in a brace or cast. Usually, an orthopaedic corset or simply adhesive strapping may suffice, and such a patient should be kept ambulatory from the start. Heavy work should not be undertaken until the patient has had healing of this transverse process, but light work or office duties can be carried out right along, from almost the day of injury. Here again, local injections into the fracture area will very often give definite relief of pain for several hours or several days. Physiotherapy measures are of value but not in the first week or two. If this fracture does not heal and there remains a loose fragment this might have to be removed before the patient is cured.
- FRACTURES OF THE SPINE—SPINOUS PROC-ESSES. Fractures of the spinous process or processes are in somewhat the same category as that of the transverse processes, although this fracture is much less common and is more prone to produce a non-union because of the ligament and muscle pull forces, which displace loose fragment.
- Fractures or dislocations of the cervical spine especial care must be taken to be sure that there is no brachial plexus involvement as well as no cord damage. Patients with fractures of the cervical spine should be kept in bed for at least a few days or a week or two, with head halter traction and a small pillow or rolled up blanket under the neck, in order to support the normal cervical lordosis, and here again it is most important to be on the constant watch for any signs of cord or brachial plexus involvement. Most of these cervical fractures should be treated by an orthopaedist, but in the uncomplicated case,

similarly to the thoracic and lumbar spine, a general practitioner can handle the patient safely and well, especially if he has had adequate experience in treating these injuries. A well-fitting cervical brace will be necessary when the patient becomes ambulatory, which can be replaced after healing is well along, with a collar. If there has been displacement and malalignment which necessitates skeletal traction, of course, an orthopaedist or neurosurgeon should be called in.

- Fractures of the sacrum and coccyx. These fractures generally heal up well and do not need any reduction, even if considerably comminuted or displaced. The coccyx may need manipulation by the finger in the rectum and here local novocaine can well be used as a local anesthetic. You are all aware of the efficacy of the hot Sitz baths, rubber rings and sponge rubber cushions for these patients. A certain percentage of fractures or dislocations of the coccyx will come to coccygectomy, no matter how they were treated.
- Coccygodynia. This aggravating and troublesome condition, which is very prone to become chronic, may occur as a result of a traumatic fracture or dislocation of this member of the spine, or it may be secondary to contusion or sprain of this sacrococcygeal area. Every now and then this condition is met with and there is no apparent cause for its inception, although at times it may be secondary to a rectal, gynecologic or prostatic condition. The treatment of coccygodynia, per se, is well known and consists of hot Sitz baths, the use of rubber rings or sponge rubber cushions to sit on, and physical therapeutic measures are at times helpful. Local injection therapy into the sacrococcygeal junction, with or without manipulation per rectum of the coccyx, is often most efficacious and should be repeated at regular intervals as indicated. When this becomes a chronic, disabling or very annoying condition, coccygectomy should be done.
- MYOFASCIITIS. Myofasciitis, as we all know, is very closely kin to bursitis, tendinitis and also periarthritis. In some instances it has the same etiology as periostitis. We are all aware of the

manifold causes for this condition. In the initial stage of myofasciitis and other conditions which affect the regions of the vertebral column, muscle relaxants, the usual physical therapeutic measures, judicious exercises and local injection of various solutions, are most important. Support may be needed for the back at this stage, but too long immobilization in a spinal support is pernicious as it leads to atrophy of muscle, lack of joint mobility and damaging adhesions. In explaining the role of local injection to our patients, the simple picture of the breaking of the vicious circle by these injections is well understood and easily explained.

When this myofasciitis becomes chronic, it leads to a definite fibrositis which generally signifies an irreversible thickening and lack of elasticity of the fascia. It is in this last condition that orthopaedic surgery is oftentimes needed, as fasciotomies and other plastic procedures on the myofascial structures often do give improvement, and at times cure.

• WHIPLASH INJURIES. These injuries are being seen more and more often and are becoming more and more of a trial to the medical profession. One thing I want to stress is that complete x-rays should be taken of all the involved or complained of areas. It is much better to take many negative x-rays than not to take one of a part which has been severely injured. Here, once more, be most careful about checking up on any injury to either brachial plexus or either the greater or lesser occipital nerves on either side. If these injuries are severe, the patient should be hospitalized at once and kept in head halter traction with the neck in the most comfortable position and this is very often found to be in slight or moderate. or at times, in pronounced flexion. Ice packs, or cold applications, generally make these patients feel better for the first forty-eight hours and tend to curtail hemorrhage and edema, after which heat alleviates pain and tends to reduce muscular spasm better. During the hospital stay, which may be only a few days or again several weeks, the patient should be made ambulatory to go to the bathroom and to eat his meals, unless his injury is very severe. In any event, when ambulatory or sitting up in a chair, his neck should be supported by a well-fitting collar or cervical brace, again with either flexion or extension, in the position where the patient feels the most comfortable. Sometimes all that is required is a large rolled-up bath towel or small blanket, which is fastened around the neck as a homemade Schanz collar. During this time the patient should be on voluntary muscle relaxants, ordinary analgesics and at times he will need some hypnotics for sleep. The usual physiotherapy measures can be started early and it can be safely said that the earlier these patients are treated, the faster will be their convalescence and the more complete their recovery. It is when the acute myofasciitis develops into a chronic myofasciitis and then progresses into a real fibrositis that conservative measures fail to suffice and radical ones have to be undertaken. Local injection therapy into tender trigger points are most important in this pre-chronic condition and these points of tenderness may change from day to day or from week to week. Sunshine, graduated exercises, swimming and any activity which is gradually increased is most helpful. Always bear in mind that tension and anxiety states cannot only aggravate such a post-traumatic myofasciitis but often be the sole cause of a myofasciitis in the cervical, scapular and shoulder areas. When we see a post-traumatic myofasciitis on which is superimposed a tension and anxiety state, and also a litigation-lawyer overlay, we have a really complicated and, at times, most frustrating problem. A relatively short time ago, a large series of these litigation whiplash injury patients were thoroughly checked up and I believe a very high percentage of all of them became well, or almost so shortly after their cases were settled, and the better the settlement from a monetary standpoint the quicker and more complete the recovery. We all know this to be true in many instances and there is not much that we can do about it, except to treat the patient to the best of our ability and try to ease his mind, allay his fears and mitigate against his scheme or dream of making a lot of money in the courtroom.

I think it is good, sound advice to have these patients seen by an orthopaedist or a neuro-surgical consultan, if the condition becomes chronic or if there is any real or contemplated litigation aspect.

• Low back injury, with or without disc RUPTURE. There is quite a variance of opinion among the experts as to how prevalent a ruptured nucleus pulposis is from trauma to the low back. Certain men think that practically all of the low back injuries with sciatica are the result of a ruptured nucleus pulposis but there are just as many, or more, who believe that sprains of the sacroiliac joint or of the lumbosacral facets, or injuries to the iliolumbar ligaments or other soft structure in and around the low back, can give the identical findings and symptoms of a ruptured nucleus pulposis, at one or more low back levels. In any event, a most careful physical examination is essential and the earlier this is done the better. Then x-rays should be taken in every such instance and oblique x-rays may be necessary, as they bring out fractures or overriding of the facets or congenital defects of the facets or pedicles which are not seen at all, or well, on the anteroposterior or lateral views.

These patients, especially if they have unilateral or bilateral sciatica, should be put to bed, generally in a Fowler's position, so that they are made as comfortable as possible and then either bilateral Buck's extension or pelvic traction should be put on, with the weights adjusted to take care of the size and age of the patient. Generally, from twelve to twenty pounds total is used. If the leg pain disappears within a few days, I see no reason for calling in a consultant, especially if the x-rays are completely negative. If, however, such is not the case, a neurosurgeon or an orthopaedist should be called in on the case. Myelograms are useful but should never take the place of careful physical examinations, which should be repeated frequently, especially if there are changing neurological findings. Discograms are used by some orthopaedists and by most neurosurgeons but my experience with them has not been happy, even though I have never done one. Many orthopaedic surgeons do not approve of puncturing a normal disc, even with the smallest needle, and I happen to be one of this number.

With minor sprains or strains of the low back, with or without sciatica, the patient should have some sort of lumbosacral support to be worn during the day, and he should be put onto a firm bed and may sleep better on a hospital bed, put into Fowler's position. Local injection therapy is one of the most important adjuncts to his treatment, and of course the usual physical therapeutic measures, with muscle strengthening exercises, are needed.

• OBESITY, MUSCULAR WEAKNESS AND POOR POSTURE. Obesity is the ever-present, hovering ghost which haunts all our endeavors to treat and cure the ordinary orthopaedic conditions found in our patients' spinal regions. Lack of adequate and correct exercise, the wearing of improper footwear and poor posture are all

important factors, but by far, obesity is the demon which must be destroyed. Therefore, whenever we have a patient who has back trouble of an orthopaedic nature, the weight control must be definitely enforced and many people can discard their orthopaedic garments and braces as soon as they lose their excessive weight and regain normal muscle tone and power. Posture ordinarily will automatically improve as these measures are carried out. When the patient is in the process of losing weight (which must be strictly supervised by the doctor) corrective and strengthening exercises can be carried out and if a physical therapist is available such services should be employed.

Generally, a physician does not have time to instruct a patient in an exercise routine and this is part of every physical therapist's training, and a constant check should be made as often as needed to see that the patient is carrying out the recommended measures.

Summary

Offhand, one might think that the general practitioner had very little to do with the treatment of orthopaedic conditions of the vertebral column, but the foregoing comments tend to prove otherwise. I firmly believe that many of these orthopaedic conditions can and should be treated by the general practitioner who, as he

gains in experience and knowledge, will know better which patient should be referred to and to whom. I hope that my comments will help the general practitioner to see this matter from an orthopaedic standpoint.

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SEE PAGE 61a

Principles of DERMATOLOGIC

PART I: THE DERMATOLOGIC HISTORY

- Introductory Note:
 On the nature of dermatologic diagnosis
- Anamnestic technique in dermatology
- A table of some historical items that are important in many cutaneous diseases
- A table of some cutaneous conditions in which quality and/or degree of pruritus, pain, tenderness or discomfort may be of diagnostic importance
- A table of some common or important dermatoses or categories of dermatoses that have more or less significant historical aspects or characteristic clinical courses

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here is a certain naiveté among lay persons, medical students and non-dermatologic practitioners of medicine about the diagnostic technique of dermatology. It is a nearly universal impression that dermatologic conditions are easy to differentiate and designate because they are grossly visible. Sometimes even, it is invidiously implied that the conditions to be differentiated and designated are trivial anyway, that little that is effective will be advised for them, and that it hardly matters then how well or poorly they are separated and named. Thus it is common to hear otherwise reasonably well-versed physicians refer to a cutaneous disease as a "little dermatitis," a "fungus" or an "allergy rash" as though they were conveying exactitude sufficient unto the subject. Well, there is no classification of dermatoses into "big" and "little;" there is more to the microbiology of the skin and its infectious diseases than fungi and fungous infections; and to use "allergy" as an adjective is rash indeed.

The question of what is a diagnosis, dermatologic or other, and aside from the general problem of how to make a diagnosis, deserves philosophic exploration. To be quite simple, however, let us say a diagnosis consists of recognition of the more or less limited nature

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DIAGNOSIS

of a condition from its history, symptoms, signs and special-test phenomena and designation of it by a currently accepted title. Before one can arrive at designation one has to go through a routine of study and discovery in order to be able to recognize the nature of a condition as a dynamic process and as a separable entity. All of this assumes that most conditions have sufficiently different natures, that they are separable and that naming usefully communicates their distinctions. And, it will be recalled that frequently enough, in all branches of medicine, there are situations in which differential resolution eludes the most thorough study, and even when absolute definition has at long last been achieved, the nature of the disease may not be revealed by the name because too little is known of that nature. However, all this may be, to a greater and happier extent, dermatologic conditions, like those of our specialties, can be differentiated, usefully named and explained. This is not to say that it is always possible to make an adequate, let alone a definitive, dermatologic diagnosis at sight and at once. No other branch of medicine has as much gross descriptive burden as does dermatology. There are approximately twenty square feet of exteriorized skin surface to view. That surface, moreover, is finely sculptured and grandly contoured. All changes possible on it, normal and abnormal, require delineation, designation and recognition. Thus there is too much to see easily and quickly, and at the same time one can never see enough with the naked, or even with the instrumentally aided eye. There is too much that is common to too many conditions, and those conditions moreover, may be of multiple causes or mechanisms, or if of solitary cause, then possibly capable of showing themselves in a dozen variant clinical forms. Some conditions can, even with small experience, be recognized and labelled quickly. More can be told when experience and ingenuity are greater; but many cannot be certified by gross inspection alone even with greatest experience. In any event, successful designation merely by name hardly ever encompasses or communicates the essence of a condition.

What must go on in the mind of the dermatologic diagnostician-in the mind of any medical diagnostician for that matter-upon first confrontation with a problem is a rapid but critical evaluation of the history of the presenting appearance to date and the signs and symptoms of the moment. Sometimes this is enough for the diagnosis by name because the condition is common and well-known or because all data are typical; but more often only a differential diagnosis of several possibilities is all that can be made at first. And when merely a differential diagnosis has been possible, it is required to pursue ultimate resolution by further review of history, observation of the course of the disease, special tests to the limit of modern precision and response to therapy designed to affect certain likely possibilities. The review of history may have to be like a courtroom cross examination, sometimes even like a police barracks third degree; tests may have to include laboratory procedures ranging from encephalograms to toe nail scrapings and study of therapeutic behavior may have to be prolonged. As often as in other branches of medicine, such elaboration may satisfy the diagnostic requirement; sometimes the pursuit of diagnosis is futile and utterly frustrated.

Fortunately, it is not always necessary to make a diagnosis by name and at once because the name of a dermatosis is often merely something partially descriptive of morphology, something eponymic or something otherwise not revealing of cause, of mechanism or of what to do about the condition. While it is nice to be able to give a traditional name to a case in

hand, if indeed it can be neatly named, the practical aim of diagnosis should be to recognize patterns and flow of disease or areas of disease possibilities, and eventually to unravel causes or mechanisms which may be, but are not always, essential for purposes of cure. It avails little to make a conventional diagnosis by name if nothing more is said thereby than that the condition is seen repeatedly in the form presenting. It is better to be able to tell whether a condition is inflammatory or noninflammatory, whether infectious or non-infectious, whether nevoid or acquired, whether acute, progressive, chronic, self-limited, of multiple causation or, simply, treatable. Of course when diagnosis by cause or mechanism and name is possible, all problems of management are usually more easily solved.

In order to diagnose dermatologic conditions so that one may then treat, it is necessary to know 1) how to take history, 2) how to examine, 3) how to correlate history, symptoms and signs with the natural course of cutaneous diseases, 4) how to choose and perform special tests and how to interpret test results, 5) how cutaneous diseases are influenced by adventitious factors and 6) how cutaneous diseases respond to treatment.

It will be obvious that dermatologic diagnostics, like that of any specialty, cannot be taught by, or learned from, a verbal statement. However, with an awareness of the scope and tools of dermatologic diagnostics and by constantly attempting diagnosis of skin conditions, one can become a fairly good dermatologic diagnostician. The balance of this paper furnishes some details of the arts and sciences for this purpose.

Anamnestic Technique in Dermatology

In dermatology, as in other specialties where examination by the gross senses and by relatively simple instrumentation tell a great deal, it is more efficient, in general, to take a brief history of the chief complaint and then do a preliminary examination of the skin in order to orient oneself for the direction of further study as needed. Then, if there is need, history can be reviewed and expanded in as great detail as is necessary or possible, and finally reexamination can go forward with or without special tests to as great an extent as is warranted or possible. In simple conditions, little history and quick examination may be all that is required for practical diagnostic and therapeutic purposes; in subtle conditions history-

TABLE 1 SOME HISTORICAL ITEMS THAT ARE IMPORTANT IN MANY CUTANEOUS DISEASES

THE HISTORICAL ITEMS

The inception, duration, symptomatology and course of the complaint (the natural history of a disease).

Conditions of the home, work, play activities, travel, climate, etc. Exposure to contagious diseases.

Previous topical medications and personal cosmetic habits.

SOME CONDITIONS IN WHICH IMPORTANT

Almost any dermatosis, e.g., acne, atopic dermatitis, herpes simplex and zoster, lichen planus, pityriasis rosea, psoriasis, etc.

Primary irritant and allergic eczematous contact dermatitis ("occupational dermatitis"), traumatic conditions, pyogenic, fungous, viral, metazoal and exotic infections.

Primary irritant and allergic eczematous contact dermatitis.

taking and examination may have to be prolonged and complicated. The direction and amount of history-taking and examination will depend on many uncertain factors, to wit, the abilities of the patient and physician to communicate by language and temperament, the ability of the patient to pay for professional time and test procedures and other imponderable things. Skill in history-taking depends on constant practice of the art, on the volume of knowledge and experience attained and upon natural or acquired gifts like an ability to draw out and listen to conversation. Though the amount of history needed, wanted or elicitable will vary, usually the following items will most frequently be applicable, if not always obtainable:

● The Complaint and Presenting Condition. What will be most relevant is a detailed account of the inception, course and symptomatology of what is complained of. Questioning may proceed along such lines as: when in point of time and where on the body did the condition start? What did the first lesion(s) look like? Has the condition changed in appearance, and if so, how? If it has not stayed stationary, where did it spread to, has it disappeared in part or entirely at times, and has

it recurred? Does the condition itch, smart, prickle, burn or pain? What previous home remedies or prescribed agents have been applied and what happened as a result?

• Relevant Present and Past Personal and Family History. From the nature of the case, inquiry may have to be made of work or play activities, of general environmental conditions, of previous cutaneous diseases, of familial instances of the same or related disorders, of atopic background, of past or concurrent other organ or systemic diseases and treatment therefor, of travel in other regions, etc., etc., for innumerable questions.

What has been suggested above may be enough, even too much, for many conditions. On the other hand, it may be a mere beginning of development of wide-ranging excursion into history of relevant details. One must be realistic, however, and remember that one may invite a surfeit of history. With an intelligent and intellectually modest patient and with no language barrier, history-taking can be relevant, expeditious and as complete as knowledgeability makes possible; with the garrulous, discursive and histrionic patient, history-taking is a trying and exhausting ordeal; with the dull patient, history is fragmentary or blank. Never-

THE HISTORICAL ITEMS

Previous or coexisting systemic or other organ diseases and treatments therefor. The habit of self medication with anodynes, vitamins, laxatives, sedatives, etc.

Familial background: parental consanguinity, familial occurrence of identical diseases, atopic habitus (familial or personal occurrence of hay fever, sensitization asthma, atopic dermatitis and other atopic expressions).

SOME CONDITIONS IN WHICH IMPORTANT

Dermatologic manifestations of systemic or other organ diseases. Drug eruptions.

Hereditary, congenital dysplastic, nevoid and neoplastic processes. Atopic dermatitis and other atopic expressions.

Psoriasis.

theless no matter what the difficulty of historytaking, one must make attempt to uncover what must be known. The main thing is to derive a straightforward chronologic narrative of the disease.

Aside from the general difficulties of taking history, one must know what to ask and the number of things there are to ask are legion. They cannot all be written down. In general one may say that, aside from questions directed toward fitting a presenting picture and story into the average pattern of the natural histories of the most likely differential possibilities and aside from hereditary factors, occupational or recreational factors, and geographic or climatic oddities, the most fruitful directions of historytaking are in matters of previous topical and systemic medication. Nothing changes the course and complexions of skin disease, especially acute conditions, so much as topical treatment, and nothing puzzles so much as drug eruptions which may imitate nearly the whole range of cutaneous diseases of non-drug cause from acne to zona. Since diseases of the skin are visible and since many people aspire to be or fancy themselves to be doctors, home treatment with proprietaries, primitive concoctions, left over salves, neighbors' contributions and advertised nostra, is common. Primary irritation of a presenting condition or acquired sensitization producing eczematous responses are frequently produced upon what was original. And what was original may be completely obscured or be relatively trivial compared to what has been added by injudicious "do-it-yourself" tinkering. As much or more than topical treatment, internal medication, usually by mouth but not infrequently by other routes, is universal practice. Drug eruptions and drug modification of coincidental dermatoses must by now be among the biggest fractions of the sum of dermatoses.

Table I is a summary of historical items that are important in dermatologic history-taking.

Table II and Table III are extreme condensations of dermatologic symptomatology and miscellaneous facts important in cutaneous diseases.

TABLE II SOME CUTANEOUS CONDITIONS IN WHICH QUALITY AND/OR DEGREE OF PRURITUS, PAIN, TENDERNESS OR DISCOMFORT MAY BE OF DIAGNOSTIC IMPORTANCE

DERMATOSIS AND QUALITY AND DEGREE OF SENSATION

ACANTHOSIS NIGRICANS

Slight or no sensation unless the amount of verrucous hyperkeratosis creates conditions favoring minute amounts of intertrigo. Unsightliness is the main complaint.

ACNE AND ACNEFORM DERMATOSES

Comedones are symptomless. Inflammatory consequences upon comedones may cause mild to moderate itching or pain.

ACRODERMATITIS CHRONICA ATROPHICANS

Early inflammatory stages may be attended by slight sensations of tenseness. Late atrophic stages are symptomless.

ACRODERMATITIS ENTEROPATHICA

There may be vague discomfort but no sharply voiced complaints.

ACRODYNIA

Marked pain, tenderness and general discomfort are obvious.

^{*} One might think that a table of this sort would be easy to fashion. As a matter of fact it is very difficult. There are a few conditions in which it is easy enough to state that symptoms of pruritus, pain, tenderness or discomfort are characteristic, nearly constant or always complained of, but for most dermatoses, wide variability of degree of uncomfortable feeling or variability of voiced complaint is commoner. The amount of skin involved, the location and distribution of lesions, the threshold of perception of sensation and the psychology of the patient with respect to attitude or acceptance of the dermatoses are some of the factors which make for variability of complaint of pruritus, pain, tenderness and discomfort. Even in seeming absolute units some dermatoses are of one grade of sensation in some patients and of another in other patients. Nevertheless, a certain average can be struck which may serve usefully to classify dermatoses according to complaint of pruritus, pain, tenderness or discomfort.

ACROSCLEROSIS

Discomfort arises from immobilization caused by the hidebound condition of the skin and from attacks like those of Raynaud's disease.

ADIPOSIS DOLOROSA

The tenderness of the panniculus adiposus is reflected in the skin.

AINHUM

No symptoms.

ALLERGIC ECZEMATOUS CONTACT DERMATITIS

Pruritus is a marked symptom.

ALOPECIAS

Most alopecias, e.g., areate and premature forms, the moth eaten alopecia of syphilis and generalized hair fall of severe febrile and debilitating diseases, are symptom free. Alopecia associated with seborrheic dermatitis, folliculitis and other pyodermas, lupus erythematosus and cicatrizing conditions may be attended by pruritus or vague sensation of pain and discomfort.

ANGIOMATA

Usually no symptoms unless complicated by ulceration or unusual position.

APHTHAE AND APHTHOSIS
Severe pain.

ARTIFACTS, SELF INDUCED

Usually no or slight complaints, more out of psychopathy than out of inherent nature.

ATOPIC DERMATITIS

Severe pruritus.

BALANITIDES, MOST

Pain and discomfort.

BITES AND STINGS OF INSECTS (e.g., lice, bedbugs, bees, mosquitos, wasps, ants, spiders, etc.)

Pruritus and/or pain depending upon type and secondary consequences.

BLEPHARITIS

Pruritus and discomfort.

(VOL. 88, NO. 5) MAY 1960

Burns (chemical, electric, thermal and electromagnetic)

Pain, usually severe and dependent on type and degree of the burn.

CALLOSITIES

More or less pain and discomfort, depending upon site and type of pressure, friction or weight bearing.

CHANCROID

The primary lesion is nearly symptomless. The buboes are painful.

CHEILITIDES, MOST

Pruritus, pain or discomfort.

CHONDRODERMATITIS NODULARIS CHRONICA HELICIS

Markedly tender.

CONGELATIONS (CHILBLAIN, FROSTBITE)

Tingling, pruritus, pain and general discomfort depending upon degree.

CORNS

Tender.

DERMATITIS HERPETIFORMIS

Severe pruritus and discomfort.

DERMATOMYOSITIS

The severe tenderness of skeletal muscle is reflected in the skin.

DERMATOSES OF TRAUMATIC CAUSE (e.g., abrasions, contusions, incised and puncture wounds)

Grades of pain depending on the degree and amount of injury.

DERMOGRAPHISM, URTICARIAL Pruritus.

DRUG ERUPTIONS (e.g., acneform, furunculoid, eczematous, exfoliative, exanthematic fixed, pemphigoid, pigmented, purpuric, etc.)

Depending on type, the symptomatology is about like that of a dermatosis of the same morphologic character of non-drug cause. Thus symptoms of pruritus or pain may be severe, moderate, slight or absent.

DERMATOSIS AND QUALITY AND DEGREE OF SENSATION

EHLERS-DANLOS SYNDROME
Slight or no symptoms.

EPIDERMOLYSIS BULLOSA

The simplex form is of slight or moderate sensation of discomfort; the dystrophic form is more distressing.

ERYSIPELAS

Local symptomatology may consist of tenseness and vague discomfort.

ERYSIPELOID

Slight pain or tenderness.

ERYTHEMA ANNULARE CENTRIFUGUM
Slight or no pruritus.

ERYTHEMA MULTIFORME

Moderate or slight sensations may attend the nonbullous forms; bullous erythema multiforme may be attended by more or less discomfort, especially in the mouth.

ERYTHEMA NODOSUM

Moderate tenderness.

ERYTHRODERMAS AND EXFOLIATIVE DERMATITIDES Moderate to severe grades of pruritus and discomfort.

EXANTHEMATA, VIRAL

Chickenpox and measles are moderately pruritic; scarlet fever is not noted for local symptomatology beyond vague discomfort; smallpox must be uncomfortable.

EXUDATIVE DISCOID AND LICHENOID DERMATOSIS Marked pruritus and discomfort.

Fox-Fordyce disease
Marked pruritus.

FUNGOUS INFECTION, MOST SUPERFICIAL

More or less pruritic or painful, especially the acutely inflamed and kerionic forms. Some, e.g., tinea versicolor, are nearly asymptomatic.

GENODERMATOSES

Most congenital, hereditary, nevoid and dysplastic processes that consist of supernumerary or hamartomatous structures are asymptomatic. Defects and structural dysplasias may result in variable consequences by way of sensation, e.g., ectodermal dysplasia, keratosis follicularis, ichtyosis, xeroderma pigmentosum.

GLOMUS TUMOR

Markedly tender.

GLOSSITIDES, MOST Painful.

GRANULOMA ANNULARE

Nearly asymptomatic.

GRANULOMA PYOGENICUM Nearly asymptomatic.

HAIR, DISEASES OF

Most diseases of the shafts are symptom free. When the follicular apparatus is affected, variable symptomatology may occur.

HERPES SIMPLEX

Moderate to severe pruritus and pain.

HERPES ZOSTER

Moderate pruritus locally and marked pain neurologically in the mature and aged; lesser grades of sensation in the young.

HYDROA ESTIVALE

Moderate pruritus or pain.

ICHTHYOSIS

Mild grades may be slightly uncomfortable; severe grades tend to greater discomfort.

IMPETIGO VULGARIS

Slight pruritus or discomfort.

INCONTINENTIA PIGMENTI

No symptomatology from the pigmentary anomaly; associated anomalies, especially early bullous components must be uncomfortable. INFECTIOUS ECZEMATOID DERMATITIS

Moderate or slight pruritus and pain.

INFESTATIONS

Most superficial infestations, e.g., pediculosis, scabies, creeping eruptions are attended by more or less severe pruritus.

INTERTRIGO

Moderate to severe pruritus and pain.

KERATODERMAS

Most plantar and palmar keratodermas are moderately to markedly painful or uncomfortable.

KERATOSIS FOLLICULARIS

Moderate to slight pruritus or discomfort.

KERATOSIS PILARIS

Nearly asymptomatic.

LEPRIDS

Acute inflammatory and ulcerating forms may be tender or painful; ordinary lepromas and maculo anesthetic lesions are nearly symptomless.

LEUKOPLAKIA

Slight or no sensation.

LEUKOSES, LYMPHOBLASTOMAS AND RETICULO-EN-DOTHELIOSIS

Severe pruritus is notable as a cutaneous symptom of these conditions. Variable cutaneous changes occurring in these conditions may or may not have associated sensation.

LICHEN AMYLOIDOSUS

Moderate to severe pruritus.

LICHEN CHRONICUS SIMPLEX Severe pruritus.

LICHEN NITIDUS

Nearly asymptomatic

LICHEN PLANUS

Moderate to severe pruritus.

LICHEN SCLEROSUS ET ATROPHICUS

Nearly asymptomatic, except around genitalia and anus where pruritus is marked.

LICHEN STRIATUS

Moderate pruritus.

LUPUS ERYTHEMATOSUS

The disseminated and systemic forms may be of variable uncomfortable quality; the discoid form may be slightly to moderately pruritic or painful.

LUPUS MILIARIS DISSEMINATUS FACIEI

Nearly asymptomatic, except around genitalia and anus where pruritus is marked.

MILIARIA CRYSTALLINA

Slightly pruritic.

MILIARIA RUBRA

Intensely pruritic (prickly).

MOLLUSCUM CONTAGIOSUM

Moderately to intensely pruritic.

MORPHEA

Slight or no sensation.

MYCOSIS FUNGOIDES

Severely pruritic.

MYXEDEMA CIRCUMSCRIPTA

Nearly asymptomatic.

NAILS, DISEASES OF

Moderately or slightly uncomfortable; some asymptomatic.

NEOPLASMS

Most benign neoplasms are asymptomatic. Glomus tumors, neuromas and rhabdomymata, are painful or tender. Malignant neoplasms are slightly or not at all sensible.

NEUROFIBROMATOSIS

Lesions may be moderately tender. For the most part asymptomatic.

NUMMULAR ECZEMA

Moderately to severely pruritic.

PANNICULITIDES

Whatever sensibility is inherent in panniculitides is reflected in the skin and may be of severe, moderate, slight degree or asymptomatic.

DERMATOSIS AND QUALITY AND DEGREE OF SENSATION

PARAPSORIASIS

The acute, varioliform type may be moderately pruritic; the lichenoid, guttate and en plaque type are not notable for much sensation.

PELLAGRA

Pain and vague discomfort is characteristic.

PEMPHIGUS

All forms of pemphigus must be uncomfortable but are not notable for distinctive sensation.

Periadenitis mucosa necrotica recurrens Marked pain or discomfort.

PIGMENTARY DYSCRASIA

Most disorders of melanogenesis are asymptomatic.

PITYRIASIS ROSEA

Moderate to severe pruritus.

PITYRIASIS RUBRA PILARIS

Moderate to slight discomfort.

POMPHOLYX

Usually severe pruritus.

Porokeratosis, Mibelli Nearly asymptomatic.

PORPHYRIA CUTANEA TARDA
Slight to moderate discomfort (bullae).

PRURIGINES

Most forms of prurigo are severely pruritic.

PYODERMAS

Superficial forms like impetigo and ecthyma are slightly painful or pruritic; deep forms, e.g., folliculitis, furuncles, ulcers are moderate to severely painful.

RAYNAUD'S DISEASE

Markedly painful.

ROSACEA

Moderately pruritic or painful.

SARCOIDOSIS

Slight or no symptoms.

SCLERODERMA, DIFFUSE

Markedly uncomfortable from immobilization caused by the hidebound condition.

SEBORRHEIC DERMATITIS

Moderate to intense pruritus or pain.

STOMATITIDES

Most acute and subacute inflammatory conditions in the mouth are painful.

SYPHILIDS

Most forms are nearly asymptomatic except papular secondary lesions and condylomata lata which are exquisitely tender to pressure.

TUBERCULOSIS CUTIS

Most forms are not notable for pain: some, e.g., Bazin's disease, are moderately tender and painful and orificial tuberculosis is markedly painful.

ULCERS

Most ulcers are painful or markedly uncomfortable; a few are indolent (relatively painless).

URTICARIA

Most types are intensely pruritic.

VERRUCAE

In themselves, warts are painless; position, e.g., plantar, peri- and subungual, creates conditions of painfulness.

VITILIGO

Nearly asymptomatic.

XANTHOMATA

Nearly asymptomatic.

TABLE III SOME COMMON OR IMPORTANT DERMATOSES OR CATEGORIES OF DERMATOSES THAT HAVE MORE OR LESS SIGNIFICANT HISTORICAL ASPECTS OR CHARACTERISTIC CLINICAL COURSES*

DERMATOSIS AND HISTORICAL ASPECTS

ACNE VULGARIS

Onset around puberty. Frequently familial background of acne in consanguineous line.

ALLERGIC ECZEMATOUS CONTACT DERMATITIS

Exposure to allergens of notorious sensitizing potential. Suspected or known established sensitization. Overt or covert specific recxposure.

ALOPECIAS

Areata: Fairly quick or sudden fall of scalp or beard hair to complete loss in limited, usually circular areas.

Premature: Onset insidious in early adulthood. Familial tendency.

APHTHAE AND APHTHOSIS

Sudden onset of painful lesions in mouth and genitalia with no apparent provocation.

ARTIFACTS

Neurotic or psychotic stigmata or habitus. Chemical or mechanical causation frequently obvious in spite of evasive or denying history.

ATOPIC DERMATITIS

Familial atopic background in terms of atopic dermatitis, hay fever and asthma in other members of the consanguineous line. Personal tendency to acquire other atopic expressions.

AVITAMINOSES

Long enduring malnutrition, alcoholism, debilitating diseases, especially carcinomatosis, leading to cachexia.

CLINICAL COURSE

Tendency to continuous activities of the process into the twenties and then gradual spontaneous remission.

Eruption generally limited to sites of contact. Strong tendency to quick restoration (days to weeks) upon removal of specific allergen. Poison ivy dermatitis is prototypic.

Strong tendency to restoration in terms of months. Sometimes progression to total (scalp) or universal (body) hair fall. Recurrence common

Patterned loss. Inevitable progression.

One or more erythematous maculo-papules that quickly evolve into painful ulcers. Unpredictably, sometimes very frequently, recurrent. Each lesion or episode is self limited in terms of 2-3 weeks.

Bizarre lesions in unwonted or easily accessible locations that conform to no natural development. Strong tendency to heal in manner of naturally produced wounds if lesions are not disturbed by the disturbed patient.

Infantile (2 months to 2 years), childhood (5-8 years) and adolescent-adult (13 to 35 years) phases of activity. Tendency to remission in middle life.

Avitaminosis A, B, C, D, PP, and others give more or less characteristic progressions.

A table like this would also seem easy to produce. Again it is difficult because of the variability of factors both of history and disease. What is here given is given more as an earnest of what is possible in average.

BITES AND STINGS OF INSECTS

Possibilities of exposure in the home (bedbugs, mosquitos, carpet beetles), from animals (fleas), in the great outdoors (mosquitos, bees, ants, spiders, etc.), in certain seasons (caterpillars), in travel and under exotic circumstances. Some persons more susceptible than others.

CLINICAL COURSE

Strong tendency for each assault to heal upon removal of insect or removal from places of exposure.

BURNS (THERMAL, CHEMICAL, ELECTRIC, ELECTROMAGNETIC)

Clear history of exposure to cause-type.

for x-ray burns which have strong tendency to progress in terms of years.

CONGENITAL ANOMALIES (NON-HEREDITARY)

Apparent at or soon after birth.

Some stay stationary; a few tend to worsen; most tend to ameliorate or be compensated for.

Strong tendency to quick self healing, except

CUTANEOUS CONCOMITANTS OR MANIFESTATIONS OF SYSTEMIC OR OTHER ORGAN DISEASES

Obviously widely variable history depending on nature of systemic or other organ disease or of cutaneous concomitant or manifestation. Cutaneous concomitants tend to last unless directly treated; cutaneous manifestation tend to remit with cure or control of related systemic or other organ disease.

DERMATITIS HERPETIFORMIS

From a vague start, long chronicity of eruption with unpredictable exacerbations and more or less temporary remissions. Intense pruritus.

Constant evolution of polymorphic lesions (macules of erythema and edema, papules and vesicles) that itch intensely and are characteristically excoriated. Slow tendency to spontaneous amelioration in course of years.

DRUG ERUPTIONS

Suspect or obvious or discoverable instances of drug ingestion, injection or other type of body entry.

Course is variable according to morphologic type; strong tendency to remission with cessation of drug exhibition.

ERYTHEMA MULTIFORME

Sudden onset in seasonal periods (spring, fall) of macules (of erythema and iris lesions), plaques (of edema), vesicles (herpes iris) on face, neck, arms, hands. Sometimes prodromal malaise and mild fever. Moderate local discomfort. Recurrent tendency.

Strong tendency to spontaneous remissions in weeks.

There are forms, mainly bullous, that have longer, erratic courses and frequently relatable to drug actions or systemic or other organ diseases.

ERYTHEMA NODOSUM

Sudden appearance of nodules to a number of about 6 to 20 on the anterior aspects of legs (usually).

Strong tendency to spontaneous remission in weeks.

Underlying systemic diseases, e.g., rheumatic fever, syphilis, tuberculosis; or an effect of drug reaction.

EXANTHEMATA (VIRAL)

Frequently discoverable exposure. Seasonal and epidemic incidence.

Typicality of entities in lesion types and courses. Strong tendency to self limitation. Characteristic immune phenomena.

DERMATOSIS AND HISTORICAL ASPECTS

CLINICAL COURSE

EXUDATIVE DISCOID AND LICHENOID CHRONIC DERMATOSIS

Frequently obvious neuropsychopathic habitus ("nervousness"); strong racial and sex limitation (Jews and males) but not absolute.

Chronicity, unpredictable exacerbations and mild partial remissions. Intense pruritus and discomfort. Recalcitrance to treatment.

GENODERMATOSES

Parental consanguinity or discoverable lineage of similar dysplasia or dysfunction.

Variable types. Strong tendency to progression in some, regression in others.

HERPES SIMPLEX

Sudden onset. Tendency to recur in a fixed site. Trigger mechanism like fever, sunburn, other trauma, drugs.

One to 3 week self limited course.

HERPES ZOSTER

Sudden onset. Prodrome of neuralgia, associated segmental neuralgia. Sometimes systemic or other organ disease (leukemia, foraminal defects).

Self limited course of 2-4 weeks for cutaneous manifestations; variable post herpetic neuralgia.

HYDROA ESTIVALE

Precipitation by sun; incidence in summer remissions in seasons of cloudy skies. Sometimes stigmata of porphyria.

Eruption mainly on sites of exposure.

INDUSTRIAL DERMATOSES

Obvious or subtle occupational association with primary irritants, eczematogenic allergens or trauma. Strong tendency to improvement over weekends, vacations or unemployment.

INFECTIOUS DERMATOSES (MYCOTIC, NON-PYOGENIC, PYOGENIC, VIRAL)

Sometimes obvious opportunities for exposure in accidental or epidemic circumstances.

Variable courses.

INFESTATIONS (SUPERFICIAL AND DEEP)

Sometimes obvious opportunities for exposure by common or exotic environmental exposure. Variable courses.

LICHEN PLANUS

Sudden onset of lesions (papules) in characteristic places (flexural surfaces of arms, lower back, legs).

Intense pruritus without scratch marks. Tendency to spontaneous remission in months.

LEUKOPLAKIA

In the mouth, chronic dental irritation; characteristic smoking habits.

Tendency to progression and to cancer.

MILIARIA (CRYSTALLINA AND RUBRA)

Sweating in high humiture. Characteristic prickling sensation (prickly heat).

Tendency to quick recovery in average cases upon cessation of need to sweat excessively.

DERMATOSIS AND HISTORICAL ASPECTS

NEOPLASMS (BENIGN AND MALIGNANT)

Variable stories. Mild symptomatology.

NUMMULAR ECZEMA

Seasonal incidence (winter), Pruritus.

PELLAGRA

Dietary inadequacy.

PEMPHIGUS

Sudden or insidious onset. Preponderant racial limitation. (Jews and Mediterranean peoples.)

PITYRIASIS ROSEA

Herald patch. Characteristic evolution. Pruritus.

POLYMORPHOUS LIGHT ERUPTIONS

Exposure to sunshine. Various lesion types.

PSORIASIS

From a start, chronicity, unpredictable exacerbations and remissions. Generally little sensation, except in scalp, palms, soles and intertriginous areas. Some family tendency.

SEBORRHEIC DERMATITIS

Family tendency. Moderate pruritus.

TRAUMATIC CONDITIONS

Obvious stories of cause of condition.

URTICARIA

556

Acute: overindulgence in food and alcohol especially upon incipient gastroenteritis.

Cholinergic: precipitation by heat (environmental, emotional or exertional).

Chronic: ingestion or injection of urticariogenic drugs, sensitization to drugs, products of focal infection, rarely foods.

Dermographic: friction or pressure upon skin.

CLINICAL COURSE

and recurrent.

Benign: stationary or slow progression.

Malignant: Variable threatening symptomatology. Tendency to rapid progression.

Tendency to characteristic localization, chronic

Characteristic localization, chronic and progressive.

Fatal prognosis untreated. Continuous blister-

Evolution over 2-3 weeks. Stationary for 2-3 weeks. Resolution in 2-3 weeks. Lesions arranged in lines of cleavage and on covered portions of body. Self limited.

Strong tendency to remission with shelter.

Favored sites of election (elbows, knees, scalp, nails). Wide variability in types of lesions, extent of involvement, and duration.

Erythema and scaling in favored areas (scalp, center of face, ears, chest, back, intertriginous spaces).

Variable types: 'abrasions, incised and punctured wounds, hemorrhages, etc. Strong tendency to spontaneous resolution or restitution.

Strong tendency to cessation within 1-2 weeks upon restitution of normal gastrointestinal function.

Repeated episodes upon provocation.

Tendency to prolonged or repeated episodes until discovery and elimination of cause.

Repeated episodes upon provocation.

(To be continued in the June issue of MEDICAL TIMES)

Sexual Potency and the Physician

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Considerable misinterpretation as to definition and cause of sexual potency seems to exist in the minds of physicians and their patients. For purposes of the present discussion, sexual potency is defined as "the ability to activate psychic ('emotional') desire for sexual intercourse into penile erection adequate for coitus and to achieve gratification (usually ejaculation) during the sexual act". This definition obviously excludes "fertility," a designation commonly confused by patients as synonymous with potency.

Thus far, the author has encountered no reports as to sexual activity of a large series of aging men. Finkle and his colleagues recently surveyed 101 clinic out-patients on this subject. A similar inquiry among 100 private patients will soon be published. These data will provide useful baselines for evaluation of the influence of prostatectomy upon postoperative preservation of sexual potency. 5-5

From the foregoing investigations, it became apparent that many factors unrelated to age or organic status of the individual participated in his ability to maintain active coital relationships in advancing age. It is the purpose of the present communication to review these influences, as gleaned from surveys of aging men, both private and clinic patients.

There is no absolute relationship between age and sexual potency. Potency does decline,

in general, with advancing age.^{4, 6} However, some octogenarians declare remarkable sexual prowess!

Duration of marriage is distinctly a factor as to frequency of copulation among older men. In the later years of a marriage, companionship is often far more satisfying a relationship than is quality or quantity of sexual activity. However, when elderly people marry for the first time, or following divorce or widowership, frequency of sexual activity usually exceeds that of their long-married chronologic contemporaries. Furthermore, some men whose ardor has diminished at home become possessed of remarkable sexual agility when an extra-marital opportunity presents itself, particularly with a younger woman.

Factors which could influence sexual activity, such as physical occupation, race or religious affiliation, have not been investigated by the present author. It would seem, however, that these would have bearing upon a given individual's sexual behavior. Also to be considered are circumstances such as the size of the community in which he lives, the mores of his group, and the availability of willing coital partners. For example, many older men,

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unmarried, divorced, or widowed, prefer to endure sexual frustration rather than actively seek a coital partner. The very quest for a sexual partner may engender considerable criticism by friends and neighbors, which opprobrium could dissuade the potent, aged male from exercising his sexual drives.

With advancing age, non-sexual interests may develop and serve as substitutes for sexual gratification. Long-deferred avocations may be undertaken and may displace time and energy previously allocated to sexual pursuits.

Even minor physical disabilities may decrease one's willingness to attempt sexual activity. Thus, some patients abstain in self-imposed hesitation of aggravating an inguinal hernia. Others who have had mild cardiac decompensation are reluctant to jeopardize "a bad heart," fearing the "vigorous exertion" involved in sexual intercourse.

The author has had particular interest in the influence of prostatectomy upon postoperative sexual potency. He was startled to learn that many men presume that prostatectomy invariably sounds the death knell of sexual ability. As a consequence, a patient may anticipate impotency after the operation; under such circumstances, this dread may, indeed, become a reality. It is likely, however, that the pre-existing worry, and not any surgical insult, led to the impotency. Equally surprising was the finding that many men seize upon prostatectomy as a convenient and logical excuse for being relieved of sexual obligations at home. Only the most demanding of wives would insist upon sexual gratification from a husband whose potency was "destroyed" by a prostatic operation! If the wife's interest had been declining for some years prior to the prostatic operation, neither she nor the husband might actively attempt sexual stimulation postoperatively, under which circumstances any potential for sexual activity would be lost.

Perhaps the most practical conclusion from these studies was that the attitude of the physician had tremendous impact upon the patient's desire to continue or terminate sexual activity following prostatectomy. Consider. for example, a patient about to undergo prostatectomy who inquired of his urologist as to the likelihood of sexual function afterwards. If he were counseled in negativistic or indifferent manner, the probability of impotency would be great. If, on the other hand, the physician stated, "You will probably be just as you are now," the status of postoperative function would remain an open matter. Again. if the physician reacted with a kindly and expectant attitude, the patient's chances for retaining potency would be favorable. Finally, if coital difficulties (usually "slow or weak" penile erection) were encountered during the first attempts after recovery from the prostatectomy, the physician's encouraging and reassuring remarks would go a long way toward restitution of satisfactory sexual function.

With an increasing percentage of older people in our population, there is a concomitant rise in need for prostatectomy. The desire for adequate sexual function matches that for adequate urinary function following prostatectomy. Patients are coming to prostatectomy at a much earlier age nowdays than had been the case several decades ago.7 Perhaps education of the public to the advances in surgical management have reduced the fear of the operation, inducing the patient to seek treatment before the condition causes extreme discomfort. Thus the business executive, 54 years of age, whose sleep is disturbed by repeated nocturia, is most desirous of relief. Following prostatectomy, sexual intercourse again elicits his interest, even if only infrequently. Success or failure in intercourse, as much as his urinary performance, can influence his overall equanimity. On the other hand, to a man in his mid-seventies, probably retired from active employment, disturbed sleep may prove negligibly troublesome and may not stimulate him to seek prostatectomy promptly. In such a man. modest or insignificant sexual interest would probably be recorded at the time the preprostatectomy history was taken.

It is incumbent upon all physicians to recognize that little is known about sexual

potency. Many of us glibly prescribe oral or parenteral hormone injections in "treatment of impotency." Factors such as cited here may have been overlooked in educing a medical history from the patient. Furthermore, the consensus at present indicates that hormonal therapy will have no direct influence upon potency, the anabolic effect of androgens notwithstanding. If any improvement in potency ensues, it is most likely the result of the assurance with which the physician proceeds to prescribe the hormone and the patient's hopeful attitude toward "being helped."

The findings noted above were acquired with reference to preservation of sexual potency after prostatectomy by investigators with urological interests. However, coital problems in younger patients, without need for prostatic operations, may well evolve from non-organic problems, comparable with those suggested here. The attentive and sympathetic attitude of the physician, coupled with his conservative advice, may suffice to overcome the difficulty. Of course, the situation is different with patients who have extensive psychiatric difficulties or whose morbid preoccupations with sex would warrrant psychotherapy.

The foregoing remarks point up the need for further study of sexual potency. Until additional data are procured, we owe our aging patients a realistic interest and an open mind relative to their coital desires, abilities and performances—for such activities are no longer the exclusive perquisite of men under 50.

References

I. Finkle, A. L.; Moyers, T. G.: Tobenkin, M. I., and Karg, S. J., Sexual Potency in Aging Males I. Frequency of Coitus among Clinic Patients, J.A.M.A., 170:1391-1393 (July 18) 1959.

2. Finkle. A. L.; Moyers, T. G., and Karg, S. J., Sexual Potency in Aging Males II. Frequency of Coitus among Private Patients, To be published.

3. Finkle, A. L. and Saunders, J. B., Sexual Potency in Aging Males III. Technic of Avoiding Nerve Injury in Perineal Prostatic Operations. Am. J. Surg., 99:23-26 (Jan.) 1960.

4. Finkle, A. L. and Moyers, T. G., Sexual Potency in Aging Males IV. Status of Private Patients Before and After Prostatectomy. In press (J. Urol.).

5. Finkle, A. L., Sexual Potency in Aging Males V. Status After Open Perineal Prostatic Biopsy. To be published.

6. Kinsey, A. C.; Pomeroy, W. B. and Martin, C. E., Sexual Behavior in the Human Male, Philadelphia, W. B. Saunders Co., 1948, pp. 235-238.

7. Ebert, C. E.; Belt, E.; Stewart, B. L.; LeTourneau, N. S. and Llanos, M. A., Sex and Prostatectomy, Trans. West. Sect. Amer. Urol. Assn., 25:171 (Feb.) 1958.

 Finkle, A. L., Recent Concepts of Diagnosis, Therapy and Research in Uremia, J. A. M. Women's Assn., 15:149 156 [Feb.] 1960.

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MEDICAL TEASERS

A challenging crossword puzzle for the physician. SEE PAGE 53a



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Institutional Care of the

Institutional care plays a large part in the management of many long-term patients, often being indicated for diagnosis, certain treatments, rehabilitation and terminal care. A variety of institutions care for the chronically ill. Regardless of which institution the patient enters, it should meet a number of basic principles, which are enumerated below.

Patients having chronic illnesses may be cared for in two basic types of settings—home or institution. Despite the fact that only about one-fifth of the nearly six million disabled long-term patients are currently institutionalized, it must be recognized that institutional care is still important in the overall picture.

There are a number of reasons for this. First of all, many more than one-fifth of long-term patients are hospitalized at some stage or other of their illness—often many times during its course. Secondly, the sickest patients—those needing the most care—usually enter institutions. Thirdly, institutional care is much more costly to society than care in the home, in terms of building costs, in terms of operating costs, and in terms of personnel.

With the increasing number of chronically ill patients seen by almost all physicians and with the mounting chances for helping them significantly, both through medical and surgical means, it seems worthwhile to acquaint physicians with the various types of institutions for the long-term patients, what they do, and conversely, what they should do that they are not now doing.

Various types of institutions take care of the chronically ill patient.

General Hospitals

It is often assumed by physicians that general hospitals do not care for long-term patients, and it is certain that they are usually reluctant to do so. However, there are in fact, a goodly number of chronically ill patients in general hospitals. First of all, we have those patients whose diagnosis has not yet been made. Then we have patients who enter for an acute exacerbation of a chronic illness, such as rheumatoid arthritis. Then we have patients who need the services that only a well-staffed and well-equipped general hospital can render, such as major surgery. Lastly, a number of surveys have shown that a significant number of people with long-term illness stay in general hospitals for long periods of time. One of these studies, done in Maryland in 1954, shows that twelve percent of the patients have been in a general hospital thirty days or longer.2 Another, done in New York City general municipal hospitals, shows that nearly thirty percent of adult patients no longer needed general hospital care.3 Since many communities are short of hospital beds, and since the patient-day-cost

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Long-Term Patient

of general hospital care is rising so rapidly, these figures are of great importance.

Certainly no one can quarrel with the frequent need of hospitalizing long-term patients for short periods during the course of their illness, for such needs as complicated diagnostic procedures and major surgery. However, keeping people whose major need is nursing care in general hospitals cannot easily be defended on social or economic grounds.

In many instances, too, general hospitals do not do a good job of caring for the long-term patient. Even major teaching hospitals often allow patients to develop decubitus ulcers. The rehabilitative aspects of chronic illness, so important in the first few days and weeks following a cerebral vascular accident and in other illnesses, are often much neglected. It is not unusual for nursing homes, chronic disease hospitals, or rehabilitation centers to receive hemiplegic patients from good general hospitals with foot drop, shoulder separation, and external rotation of the affected lower extremity—all signs of poor care.

These problems can be attributed to a number of sources. For one thing, many physicians are just not conversant with even the simplest rehabilitation techniques. For another, most nurses are also either ignorant of what to do, or hesitate to make suggestions to a physician. Consequently, unwarranted and harmful delays in setting up a rehabilitation program are the rule, rather than the exception.

Many informed individuals are today pleading the case for integrating the care of the long-



term patient into the general hospital, rather than setting up a separate institution. No one can quarrel with the theory, but in current American practice, this solution usually leaves much to be desired, as will be seen in the discussion of chronic disease hospitals.

Nursing Homes

Almost unknown until the 1930s, the nursing home has become a major factor in caring for institutionalized chronically ill patients. Nursing homes in the United States now provide approximately one hundred and fifty thousand beds, of which less than one hundred and thirty thousand provide skilled nursing care, while the rest are considered as personal care homes, providing a minimum amount of skilled nursing services.⁴

Nursing homes have one important positive characteristic—their small size—which permits (but does not guarantee) a home-like atmosphere. Except for this characteristic, they present a number of problems which militate against good care. While it is perfectly true that many nursing homes rise above the norm and

give extremely good care, the inherent problems nevertheless remain.

One of these is the proprietary nature of the vast majority of nursing homes-nine out of ten. This causes numerous problems. One is the frequent lack of capital which prevents most proprietors from building new and adequate structures and forces them into large, old houses. These structures present numerous problems both in safety and efficiency. The need to make a profit may, in some instances, operate against the provision of adequate food, services, and safety measures. In addition, the profit nature of most nursing homes often makes both community hospitals and public agencies wary of working closely with nursing homes for the improvement of services. A nonprofit hospital does not find it easy to work with a proprietary nursing home, or to send staff into such an institution. Similarly, health departments often hesitate to send physical therapists into proprietary nursing homes for fear that they will be accused of providing a small businessman with a service he should finance himself.

A second problem of most nursing homes is their small size, as proprietary nursing homes tend to have less than twenty beds. This makes for major inefficiencies in purchasing of food and supplies and in staffing. It becomes very difficult, for example, to provide adequate services in such areas as nutrition and physical therapy.

A third problem of nursing homes is their general removal from the mainstream of medical care. While patients often receive adequate medical services from the point of day-to-day management of their medical problems, the provision of consultant services, laboratory tests, and x-rays, to name three major medical services, are very difficult to provide within the current administrative structure. A careful reading of the major work on care of the long-term patient, by the Commission on Chronic Illness, certainly does not reveal major optimism on the future of the proprietary nursing home.⁵

In all fairness to nursing homes, there are

a few situations where these difficulties have been largely overcome. One well-known example exists in Vancouver, British Columbia.⁶

The possibility of Federal loans for the financing of construction may help the private proprietor with this aspect of the problem, but will not solve the other problems mentioned above.

An interesting approach to solving nursing home problems in terms of patient rehabilitation is now being carried out in Illinois. This is an educational program for nursing home staffs financed by a grant from the Federal government. Such programs, if successful, may help some of the basic problems now existing.

Those relatively few nursing homes which are non-profit in character have in many cases done a better job. These may be run under denominational auspices, under a community board of directors or as a subsidiary of a non-profit hospital. One example of what can be done in this field is the relationship between the Rhode Island Hospital and the St. Elizabeth Home, both in Providence, Rhode Island. These two organizations have successfully affiliated their medical and social services to the marked betterment of the services to the chronically ill patient.⁸

Homes for the Aged

Historically speaking, most homes for the aged were designed, planned and organized for the well-aged. Provisions for medical care were minimal and residents who needed bed confinement for more than a few days were transferred elsewhere. As the residents grew older and their chronic illnesses increased proportionately, homes for the aged gradually began to add infirmary wings. Over a period of years, some developed first-rate medical services, often with rehabilitation to self-care as a major goal. While this concept of the home for the aged as a medical institution is not new in Western Europe,9 its development in this country only goes back a relatively few years.10 Some of the larger homes for older people in the United States, particularly those under sectarian auspices, have developed programs which are outstanding for their scope and quality.¹¹ However, this is certainly not yet true in the bulk of such institutions, which still tend to have minimal medical programs.

Rehabilitation Centers

These institutions are relatively new, with only a handful going back before World War II. Today, they are much more common and are found in most large cities and many smaller ones. There is rather a bewildering variety of such centers, some primarily medically-oriented and some basically vocationally-oriented. Some have outpatients only, and some also accept inpatients.12 To keep this discussion within reasonable bounds, it will be limited to the medically-oriented centers which accept inpatients. In contrast to other types of chronic disease institutions, rehabilitation centers accept patients only for the two specific purposes of evaluation and physical rehabilitation to maximum function. When a person has reached this point, or has proven to have little or no rehabilitation potential, arrangements are made for discharge. Most of the inpatient centers are integral parts of hospitals or closely allied thereto. Often, they are located in teaching hospitals and serve a teaching and research function as well as giving service. These facilities are a most useful resource for the patient whose illness falls into this area of need.

Chronic Disease Hospitals

The chronic disease hospital as a self-contained unit apart from the general hospital has two separate and distinct roots. Scattered throughout this country are a number of chronic disease hospitals under private auspices, often sectarian, which have evolved over a number of decades because of a growing need for their services. A recent study identified twenty-nine of these institutions under Jewish auspices, for example.¹³ As a general rule, these private institutions furnish a high quality of care and some, such as St. Barnabas Hospital in New York City have become famous as centers of service, teaching, and research.

The other root is the municipal or county almshouse by whatever name it may be called. For many decades, such institutions have been caring for chronically ill patients, along with transients, alcoholics, confused senile persons, handicapped individuals, and the well aged. Moreover, they have been seriously handicapped by lack of funds, personnel and community support, so that their level of performance has been generally very poor. In recent years, as a more optimistic attitude toward chronic disease has been developing and as the futility of current programs has become apparent, many institutions of this type have been developing more adequate programs.14 The prototype of this program is to found in the Allegheny County Institution District, Pittsburgh, Pennsylvania, where Ferderber and his associates pioneered in rehabilitation, both of patients and the institution itself.15

Possibly the ideal institution for care of the chronically ill is the independent chronic disease hospital (public or private) closely affiliated with a good general hospital, preferably in close geographic proximity. There are a number of reasons to prefer this arrangement to the chronic disease unit in the general hospital. Some of these are:

- 1. With the current personnel shortages in all paramedical fields (with no relief in sight), it seems highly probable that personnel will be diverted from chronic disease units to such areas as operating rooms and emergency rooms, where apparent need is so much more obvious. Conversely, the separate unit can compete for personnel (often with amazing success) in an open competitive situation.
- With the widely prevailing financial difficulties of general hospitals, a similar situation prevails.

It is safe to say that physical and occupational therapy equipment cannot compete successfully with equipment for open heart surgery. Again, the separate institution, with its own budget, is in a better situation to obtain necessary funds.

3. A separate unit is more likely to find staff which is interested in chronic illness, since

all types of personnel will come to it by choice rather than by assignment, as is more likely to be the case in the general hospital.

4. With proper coordination, all the facilities of the general hospital can be made available to the chronic disease hospital. This would include services which the chronic disease unit did not use often enough to supply for itself. Among these might be major surgery, radiotherapy, and angiography.

5. The institutions can also share many services to increase efficiency and reduce costs. Among these might be power, laundry, laboratory services, pharmacy, and joint purchasing of supplies and equipment.

This does not mean that it is impossible, under today's conditions, to operate a chronic disease unit in a general hospital. This is obviously untrue, as it is being done successfully in a number of places. ¹⁶ However, personnel and budget shortages, as well as staff attitudes, make it very difficult to do today, even though the pattern is theoretically desirable and may be the method of the future.

Principles of Good Care

Regardless of where a chronically ill patient is institutionalized, there are a number of principles of good care which should always prevail and which are worth enumerating here:

1. Institutionalization should be reserved for those long-term patients with specific medical or social needs for such care. It should not be used as a convenient and easy method for "dumping" an undesirable medical or social problem.

2. Institutional care should be provided in a place which will meet all the patient's medical and social needs, but not in one which will provide more than this. It is obviously useless for a patient who needs a bowel resection to be in a nursing home. It is equally useless (and expensive) for a person who needs minimal nursing care and medical supervision to occupy a general hospital bed.

3. Institutionalization should not be regarded as permanent if there is any chance of medical improvement or change in a social situ-

ation which may permit discharge. For this reason, admission and discharge procedures should be as flexible as possible.

4. It is important to keep a constant flow of patients through the institution. This rate of flow cannot be as rapid as in a general hospital, but it must be present, nevertheless, to prevent stagnation of both patient and institution. From the point of view of the patient, he should leave as soon as he is able to do so. From the point of view of the institution, it will be impossible to attract or retain competent medical staff unless it is constantly challenged with new clinical problems and has the satisfaction of seeing that its efforts are often crowned with success — in this case, discharge of the patient to home or a lesser institution.

5. Chronically ill patients cannot do with second rate medical services. Changes in a patient's condition may occur at any time and are often subtle in amount and degree, demanding marked clinical acumen to detect. Chronically ill patients may also develop acute illness at any time which will need immediate and intensive care.

6. Over and above the provision of highquality medical services, the keynote of an institutional program for the long-term patient is activity, both physical and mental. This will have to be prescribed for each patient by his physician on an individual basis and carried out by nurses and therapists. Particularly among the aged, lack of such activity leads to rapid physical and mental deterioration.

7. Because long-term patients occupy beds in an institution for long periods of time, practically by definition, the provision of a homelike atmosphere is important. These patients live in the institution, in addition to getting medical care there.

8. Chronic disease units should be adequately financed. Without a stable financial base, it will be impossible to meet any of the above criteria.

Chronic disease units need to be closely coordinated with the community, its medical institutions, and its social agencies. Without such coordination, there can be no flexibility of admission and discharge policies. In addition, such coordination will help keep the staff up-to-date on changes in medical ideas and techniques, thus preventing deterioration into an institution providing only custodial care.

References

- Roberts, D. W.—The Overall Picture of Long-Term Illness, Journal of Chronic Diseases, Vol. 1, February, 1955, pp. 149-159.
- 2. Roberts, D. W. and Kreuger, D. E.—One in 8 is a Long-term Case, Hospitals, January 1955.
- 3. Rusk, H. A., Silson, J. E., Novey, J. and Dacso, M. M.
 —Hospital Patient Survey, New York Foundation, New York City, 1956, Processed, 146 pages.
- 4. Solon, J., Roberts, D. W. Kreuger, D. E. and Baney, A. M.—Nursing Homes—Their Patients and Their Care, A study of nursing homes and similar long-term care facilities in 13 states, Public Health Monograph No. 6, U. S. Public Health Service, 1957, 58 pages.
- 5. Care of the Long-Term Patient—Vol. II—Commission on Chronic Illness, Harvard University Press, 1956, pp. 198-215.
- A Unique Program to Provide Nursing Home Care, Initiated by Vancouver General Hospital. Chronic Illness Newsletter, January 1954, Page 2.
- 7. Rehabilitation Education Service for Nursing Homes
 —Chronic Illness Newsletter, Vol. 9, August 1958, Page 2.
- B. lams, Franklin P.—Two Institutions Join Forces in the Care of the Chronically III, Chronic Illness Newsletter, March 1955, Page 2.

- 9. Ellicott, V. L.—Geriatrics Care in Denmark and Britain, Geriatrics, Vol. 0, January 1954, pp. 37-40.
- 10. Krauss, Theodore C.—The Modern Approach of Medical and Ancillary Services in the Home for the Aged, N. Y. State Journal of Medicine, Vol. 57, June 1, 1957, pp. 1895-1899.
- 11. Zeman, Frederic D.—The Medical Organization of the Modern Home for the Aged, J. of Gerontology, Vol. 5. July 1950, pp. 262-265.
- 12. Redkey, Henry—Rehabilitation Centers in the United States, U. S. Department of Health, Education, and Welfare, 1954.
- Goldmann, Franz—Chronic-Disease Hosptials and Related Institutions, Council of Jewish Federations and Welfare Funds, March 1959, Processed.
- Notkin, Herbert—The Almshouse: Chronic Disease Hospital of the Future? Hospitals, Vol. 32, Oct. 16, 1958, pp. 45-47.
- Ferderber, Murray D., Kraft, A. C. and Hammill,
 P.—Physical Restoration of the Chronically III and Aged, Geriatrics, Vol. 8, April 1953, p. 186.
- 16. Littauer, David, Steinberg, F. U. and Gee, David A.—Organizing and Operating a Chronic Disease Unit in a General Hospital, Hospitals, Feb. I and Feb. 16, 1959.
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Psychiatric Treatment Resources

PART II: Concluding section of a guide to the resources available for the treatment and care of psychiatric cases. Part I appeared last month.

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VII. Child Psychiatry (Institutional)

To other phase of psychiatry is characterized by as much confusion in the assignment of responsibility as is that of institutional child psychiatry. The field is divisible into three fairly specific areas: (1) Care of the "emotionally disturbed" children, (2) Care of the mentally retarded, all of whom are not children, but, are nevertheless included in the same category, and (3) Care of the juvenile delinquent. Only the first has been unequivocally assigned to psychiatry. The retarded group have often been, and sometimes still are, regarded as being educational rather than psychiatric problems. The delinquent group has only recently been looked upon as being made up of psychiatric problems. Regardless of what decisions are made as to what profession is to be assigned the responsibility of these three groups, it is unlikely that there will be enough psychiatric personnel available for a long time to more than scratch the surface of the retarded and delinquent problems.

There are only a few institutions which have been established under psychiatric authority for the express purpose of treating the "emotionally disturbed" children. (Children's unit of the Metropolitan State Hospital in Massachusetts, Psychiatric Children's unit of Bellevue Hospital, Northville State Hospital in

Michigan, The Southard School in Topeka, Emma Pendleton Bradley Home, etc.). There are more which have been sponsored by religious or social work groups offering less extensive psychiatric orientation (Hawthorne, and Cedar Knolls School in New York, Pleasantville School in New York, Boys Town, etc.). Some state hospitals have fairly discrete departments specializing in the care of children, but in most others children are mixed indiscriminately with adult mental patients. Abandonment by a family is a common factor preceding or following admission of a child to a residential psychiatric treatment center. This imposes a serious obstacle to the rehabilitation of these children. Even when the family has not abandoned the child, institutionalization is wisely recommended only when there is such serious disruption in the family to make treatment at home impractical. This factor is sometimes even worse than abandonment for, in the latter case, foster home care is a possible resource which would not be likely when there is a family involved.

Institutionalization of children, as pointed out by Spitz and Goldfarb several years ago, is almost certain to destroy within the child much of the inner resources needed for adequate maturation. When institutionalization is recommended, therefore, it is only as a last resort, when it becomes the lesser of two evils.

The Conference on Residential Treatment Units for Children, sponsored by the American Psychiatric Association in 1956, did much to set up decent standards in this area, but failed to make this point clear. Where residential treatment units are present, there is too often an unquestioned assumption that they are the resources of choice in treating children, without sufficient regard for the overwhelming importance of family influences which are of equal importance as assets as they are liabilities.

The problem of finding trained mental hygiene personnel to staff children's units is even greater than it is in other psychiatric areas. In the case of institutions for the retarded and delinquents the problem is the worst, to the point almost of being hopeless. The latter two groups constantly suffer from the neglect of nearly everyone; the community, the professions, the sources of money, etc. The shortage of personnel, money, and professional interest is so vast, as a matter of fact, that it seems obvious that we must look to entirely other means than institutions to meet the problems.

Because of the chronic lack of professional leadership in the fields of retardation and delinquency, there are untold numbers of children in these institutions who have never been adequately screened, and, therefore, presumably do not belong in the institutions where they have been committed. Among the socalled retarded group, for example, a very large percentage of those which present no demonstrable evidence of brain damage are really schizophrenics. Among these, there is likely to be found the factor of parental abandonment as the dominant cause of their condition. Undoubtedly, early recognition and screening of this group could have prompted appropriate adoption or foster home care which might have led to fairly normal de-

It is reasonable to assume that the only children for whom institutionalization is appropriate are those which are essentially impossible to rehabilitate or educate. As a conse-

quence, institutions for children are destined to have a solely custodial function. It would be of value for organized psychiatry to recognize this, and to devote its efforts toward the prevention of unnecessary institutionalization instead of wasting its scanty resources with custodial care.

There are about one hundred public and over two hundred private hospitals for children and mentally retarded in the U. S. The public institutions have about one hundred and fifty thousand patients, or an average of fifteen hundred. The average size of the private institutions is much smaller, being around twenty-five to fifty beds. There are about thirty to fifty residential units for the emotionally disturbed children under psychiatric guidance.

VIII. Psychoanalysis

The field of psychoanalysis is sufficiently distinct in several of its aspects to deserve separate consideration in an appraisal of psychiatric treatment resources.

There are about eight hundred psychoanalysts in the U. S. who have completed their training, and perhaps another three hundred in various stages of training. There are about sixteen training centers. In the early days of the psychoanalytic movement, a great deal of opposition within the psychiatric field came from institutional psychiatrists. As a result, psychoanalysts have not been very well represented in mental hospitals. Notable exceptions to this trend have been at the Norristown State Hospital in Pennsylvania and the Topeka State and Topeka Veterans Hospital in Kansas. Psychoanalysts will be found, therefore, mostly in private practice, but are also represented in clinics and in training centers. As might be suspected, a very large proportion of trained analysts are confined to a half-dozen or so large metropolitan areas.

Prior to World War II, the psychoanalytic movement was dominated by the so-called "classical," "orthodox" or "Freudian" theories and methods. American psychiatry led the way toward the broadening of classical concepts to include other possible points of view. Today, there is recognizable two rather distinct theoretical approaches in the field. One is the classical Freudian approach, and the other is one often called the "cultural" approach. They differ, primarily, in the emphasis placed on the importance of environmental and maturation factors in the development of psychiatric problems. The Freudian theories tend to emphasize the importance of inner psychic factors presumably of instinctual origin, and the cultural school emphasizes the importance of the individual's interaction with his environment, particularly his relationships with people.

Classical psychoanalytic techniques, which were the predominant ones employed prior to 1940, required the patient to make very frequent visits to the analyst over protracted periods of time. The analysts of the cultural school, and to some extent the newer analysts in the Freudian school, are likely to spend much less time with their patients, and to be more active in their treatment. They are both similar in respect to the fact that they employ a one-to-one relationship type of therapy. However, the concept of "group psychoanalysis" is growing in importance, and offers, at least, the advantage of one analyst being able to treat larger numbers of patients.

Freud, himself, was pessimistic about the possibilities of treating psychotics with his analytic technique, and his followers tend to restrict their practice to psychoneurotic cases of rather high intellectual attainments. On the other hand, Harry Stack Sullivan and Frieda Fromm-Reichman have made substantial progress in the analysis of schizophrenics, to the point where the traditional therapeutic pessimism is no longer prevalent.

Analysts, in general, are likely to see a much smaller number of patients per year than other psychiatrists, and the practice of many analysts is partly or largely made up of trainees in the analytic schools who undergo personal analysis as part of their training. Probably some 10,000 to 15,000 patients per year are treated according to the more or less standard

psychoanalytic techniques. There is a much larger group, however, who receive what has come to be known as "psychoanalytically oriented psychotherapy" which employs more direct and active participation of the therapist, but modeled along the lines of one of the analytic theories.

Training in psychoanalysis has traditionally been the province of psychoanalytic societies. Starting in 1940, however, a few medical schools became centers for psychoanalytic training. There still remains a fairly sharp distinction between the "psychobiological" methods of training in most mental hospitals and the analytic training offered elsewhere. It tends to be somewhat fashionable for the younger psychiatric trainees to seek analytic training in conjunction with, or in addition to, their hospital training. It would seem reasonable that organized psychiatry needs to work in the direction of abolishing the distinction between the two, and to amalgamate the best features of both in the same training program.

A considerable controversy has come up from time to time over the isue of training nonmedical people in psychoanalytic techniques. Freud himself cautioned against this practice, but nevertheless supported the analytic practice of his daughter, Anna Freud, Otto Rank, Eric Fromm and Theodor Reik, none of whom were physicians. The William Alanson White Psychiatric Foundation in New York has sometimes made analytic training available to nonphysicians. Psychologists and social workers, particularly, have attempted to get analytic training and to set themselves up as "lay analysts." This term is recognized only by themselves and cannot be regarded as having any significance to psychiatrists. Organized medicine has consistantly, though not vigorously, opposed the practice of training nonphysicians.

IX. Community Mental Health Services

The federal government, through the National Institute of Mental Health, provides funds (\$4,000,000 per year) to support state programs in setting up local community mental

hygiene clinics. New York and California have developed the most formalized state-wide programs under these auspices. In New York, the Community Mental Health Services Act, and in California, the Short-Doyle Act have established programs whereby the state and local community share in the financing and development of local clinic resources. During 1958, New York spent about \$10,000,000 of state money for their program. The one in California completed its first year of operation at the end of 1958.

Other states have watched, critically, the modus operandi of these two pilot programs, and hope to improve on them before setting up their own. The system in New York has been criticized on the grounds that too much of the control on the county level comes to be vested in either county welfare or health departments which seem to find ways of spending large sums of money without producing visible evidence of a commensurate increase of clinic facilities. The people who advised California on its legislation feel that this danger was minimized with the provisions of the Short-Doyle Act. Other observers, however, feel that California has made the mistake of placing too much control in the hands of agencies having a vested interest in the state hospital system, thus leading to the possibility that community resources may become too closely identified with state hospital programs (followup, etc.) and thus fail to serve an adequate preventive function. Some states, such as Texas, plan to emphasize prevention through making its contemplated community mental health service program a part of the public health system instead of part of the state mental hygiene plan. Whether or not this idea will reduce the dangers alleged to be present in the other two state programs remains to be seen. Another possible variation, under consideration in one of the western states, is for purely private psychiatric groups to make contracts with the community, aided by state funds, to provide mental hygiene care.

All systems proposed or in operation have had, and will continue to have, their critics,

some of which will inevitably be justified. In general, criticism of purely private operated facilities will be in the nature of alleging the private exploitation of public money. Criticism of those systems under control of governmental agencies will be accusations of empire building. Both types of dangers have some reality and when present, would serve to sabotage the success of what is otherwise a very worthwhile movement. Perhaps the answer is to set up adequate methods of scrutiny by interested private citizens' organizations. This suggests a possible function for local chapters of the National Association of Mental Health.

The type of mental hygiene service contemplated under these programs is that of clinic or outpatient care which can reach early cases of psychiatric problems without regard for ability to pay. This is certainly a noteworthy objective, and offers a great deal of promise in the development of early treatment and preventive facilities.

X. Psychiatry in General Practice

The term "General Practice" is used here to include all medical practice except psychiatry. Besides the typical "general practitioner" we will be concerned mostly with the internists, the pediatricians and to some extent the public health physicians and obstetricians. There are about a quarter of a million licensed physicians in the U.S. of which only ten thousand five hundred are psychiatrists (five percent). About one-third of the grand total are truly "general physicians," another third are semi-specialists and the other third restrict their practice entirely to one specialty. The American Academy of General Practice has a membership of about twenty-five thousand and these are the general physicians who express the most interest in postgraduate training.

Various studies have demonstrated that of those unselected patients who seek medical care from physicians one-third are purely psychiatric problems. Psychiatrists, particularly, assume that the vast majority of psychiatric problems seen by general practitioners are incorrectly diagnosed and incorrectly treated. Nevertheless, a great deal of very effective psychotherapy takes place between the family physicians and his patient which may be unrecognized. It is probably true that the typical general practitioner prescribes drugs or some other mechanical procedure when they are not indicated, but very often this aspect of the doctor-patient relationship assumes a symbolic status which fools nobody except the drug companies. In addition, a great deal of valuable psychotherapy takes place independent of what the physician regards as his clinical practice.

On the other side of the coin, there is an immeasurable, but large, amount of sheer ignorance with some fraud in the handling of psychiatric problems in general practice. In these cases, a great deal of harm to the patient is probably done through unnecessary operations, creation of drug addictions and failure to take measures to circumvent serious trouble.

It is often assumed that the financial status of patients strongly determines the quality of psychiatric care they receive from doctors. A recent study by the Yale Department of Psychiatry suggests that patients in the lower part of the economic scale are more likely to be given drugs or some other organic treatment, while patients in the higher levels are more likely to be directed to psychotherapeutic sources for help.

The field of pediatrics seems to be moving rapidly toward the inclusion of a major amount of psychiatric training and treatment. The decline in importance of infectious diseases makes the pediatrician's role more and more that of handling preventive health problems, a large percentage of which will inevitably be mental health problems. It behooves organized psychiatry to look upon pediatrics as one of the principal preventive resources available in the total mental health picture.

Internists have long been interested in the psychosomatic aspects of medicine. They have been largely instrumental, for example in establishing the American Academy of Psychosomatic Medicine and the American Psychosomatic Society.

XI. Day Hospitals

It is interesting to note that standard, taxsupported mental hospitals have developed to their present status in response, primarily, to public pressures motivated by the wish to seclude the psychiatric patient from society. They did not develop along those lines by which they are characterized today in response to therapeutic considerations. In sharp contrast. the new, modern-day concepts of psychiatric care (such as day hospitals) have evolved directly from the recognition by psychiatrists of a need for different types of facilities than were previously available. Above all, the newer ideas which have merit are those which minimize the institutional influence on the patient and emphasize his participation in community activities. The day hospital concept is a typical example of this sort of trend.

Day hospitals (or day care centers) are designed to provide a full-day program of therapeutic activity for the patient without requiring that he remain in a hospital. Specifically, most day hospitals offer a program of supervised recreational and vocational activity plus individualized therapy for six to eight hours a day, five days a week, while permitting the patient to spend the rest of his time at home. It is a way of providing for the patient all that a hospital ideally provides without separating him from family and community. In general, it offers a treatment program which is more extensive than that required for clinic patients or those commonly seen in private psychiatrists' offices.

Those day hospitals now in existence have developed along somewhat different lines. Some of them (Trenton State, New York Department of Mental Hygiene's Day Hospitals in Brooklyn and Poughkeepsie) have been used primarily as a way of facilitating the discharge of hospitalized patients. Others (Robbins Institute in New York) have been operated to meet the needs of certain patients as a substitute for hospitalization. Others (such as the day hospital in the Montreal General Hospital) have offered their service to both kinds of patients (pre-and post-hospitalization). Still

others are being set up to serve clinic patients. In each case, the day hospital has developed as an adjunct to a state hospital, the psychiatric service of a general hospital, an outpatient clinic, or private psychiatrists' office practice.

All day hospitals place a heavy emphasis on the importance of supervised group activities. They generally find that average lengths of stay can be measured in weeks. This results in an overall economy as far as cost of treatment is concerned, as compared with the cost of hospitalization, although the per diem cost is higher. The physical facilities required are non-critical, can be quite simple, and make possible the extensive use of community facilities. Personnel requirements are high, however, since the entire operation of the day hospital is dependent upon the activity personnel.

XII. Night Hospitals

As with Day Hospitals the concept of the Night Hospital developed in response to expediency. It is a way of providing an in-between service where the patient is under the care of a hospital staff, but is spending part of his time in the community. Usually, the procedure used has consisted of the patient changing from the status of full-time hospitalization to one where he is working at a job in the community during the days while returning to the hospital at night. Ideally, there is provided an activity program plus individual treatment during his evenings at the hospital. This method provides a way by which a patient can experiment with the responsibilities of a job while having available daily contacts with the hospital environment. The method would be most useful for patients who have adjusted well to the hospital, and have learned to regard it as a source of safety and guidance. Generally, this would apply to patients who are lacking in helpful relationships with friends or family. The concept of the Night Hospital has been employed in the treatment program of the Montreal General Hospital, and to a less formalized degree at the Massachusetts Mental Health Center.

XIII. Branch Hospitals

The Branch Hospital is a device designed to de-centralize larger mental hospitals to make psychiatric services more available to outlying areas. As the name indicates, the method refers to the operation of a smaller unit of the main hospital. Usually, a minimum staff is provided, and is supplemented with professional visits from the principal center. In Ontario where the idea originated, the actual branches often consist of farms where patients are provided with housing and occupations. Although originally designed as a way of "farming out" the more manageable chronic patients, there is a growing awareness of its usefulness in bringing psychiatric services to communities not previously supplied.

According to the newer uses of this method, Branch Hospitals may profitably be set up as adjuncts to community general hospitals but staffed and administered by a distant mental hospital.

XIV. Screening Centers

The principal purpose of the Screening Center is to provide a type of psychiatric service which is easily accessible to the public. One which has been in operation in Philadelphia is staffed with psychiatrists and social workers.

Anyone who wishes to inquire about psychiatric care is encouraged to seek help. Often, the only guidance offered is in the form of simple information. When deeper study is indicated, an actual patient may be given a diagnostic evaluation and then recommendations offered in terms of what the patient might most profitably do about his difficulties. In other words, the patient, after screening, is referred to the appropriate psychiatric, medical or social service agency. The main advantage of this concept is its availability to the public. Because of the relatively small staff and simple physical facilities required for this type of service, it becomes a very worthwhile kind of enterprise for community or charitable agencies to sponsor.

XV. Satellite Clinics

This term is hereby proposed to apply to a particular type of psychiatric service which has been tested out in Nebraska and found to be highly useful. This method consists of the employment of local physicians and their offices as part-time staff and space for the purpose of handling the after-care problems of previously hospitalized patients. The concept is most adaptable to areas of the country which are deprived of more specialized psychiatric services. In order for the system to be successful, it is necessary to provide instructions in psychiatric techniques and consultation services for the local practitioner. In Nebraska, the physicians who are engaged in the enterprise meet, together, at regular intervals in the medical center where a supervising psychiatrist offers instructions and guidance in patient management. Another possible variation of the theme is that of providing a traveling consultant who makes regular visits for consultation to the local physicians. With such guidance, many physicians will show a greater willingness to treat some of the more difficult psychiatric patients.

XVI. Itinerant Clinics

Traveling psychiatric clinics have developed in some parts of the country to bring treatment or diagnostic services to out-lying communities. In New Hampshire, a clinic team travels to several different towns in the state and offers clinic services on certain stated days. Most examples of the traveling clinic have been developed as part of state hospital follow-up programs. The same method could be equally applicable for providing treatment or diagnostic services for patients not previously hospitalized. In the middle west and western states, the use of airplanes could greatly expand the usefulness of this type of service to remote areas.

XVII. Half-Way Houses

The concept of the Half-Way House was developed for the purpose of providing ex-hospital patients with a kind of sympathetic head-

quarters in the community. As generally operated, they are set up primarily as social centers where patients may congregate for recreational purposes, providing a resource for relationships which might otherwise be unavailable to them. In New York City "Fountain House" has been in operation for a few years and found to provide a much needed service which can help prevent re-admissions. The staffing there is principally with social workers and volunteers. A similar project in California, called "Half-Way House" is more psychiatrically oriented. In Montreal an informal service of this sort developed under the auspices of the Y.M.C.A.

XVIII. Sheltered Workshops

A major handicap to the successful rehabilitation of hospitalized psychiatric patients is the difficulty in placing them in gainful occupations. The Sheltered Workshop provides a way by which a patient can be guaranteed a job and the opportunity of learning a skill without having to face the customary competition of the business world. Actually, nearly all examples of Sheltered Workshops in the U.S. have been those set up for physically disabled patients. Altro Workshop in New York City, which originally offered its services to ex-tuberculosis patients is now experimenting with the vocational rehabilitation of psychiatric patients. The New York State Department of Vocational Rehabilitation offers some training service for psychiatric patients, but not quite of the sort usually known as a Sheltered Workshop. It would be highly appropriate for state agencies to set up Sheltered Workshops as part of their total rehabilitation programs. Private industries might be encouraged to add small units to existing factories as part of their philanthropic activities.

XIX. Therapeutic Community

The term Therapeutic Community has come to acquire two different meanings. Originally, the concept in England, Belgium and Switzerland was meant to apply to a section of an ordinary community where psychiatric patients

(alcoholics in the case of Switzerland) live and work under some sort of supervision, preferably by a mental health team. The emphasis was on the creation of a commonplace type of community living free from an institutional atmosphere. In the United States, this concept has been corrupted to mean the introduction of community-like features in standard institutions. It is suggested that the term be reserved to apply to an actual community areas having psychiatric supervision. No examples of a formalized nature are known to exist in the U.S. It would seem appropriate that geriatric psychiatry would be best adaptable to this method of psychiatric care. One of the most noteworthy examples in Europe is the Psychiatric Institute of Francker, Netherlands.

XX. Integrated Psychiatric Service

As more and more general hospitals add psychiatric treatment services, there has developed a growing interest in the "Integrated Service." This concept is based on the hope of including other medical specialties in psychiatric treatment programs. The Integrated Service is not an independent psychiatric unit, but psychiatric patients are hospitalized in medical and surgical services under the combined care of psychiatrist and the other specialist. At Mt. Sinai Hospital in New York a very elaborate psychiatric service is integrated with each ward in the hospital. To a large degree, the psychiatrists serve as consultants leaving the major responsibility for patient care in the hands of other physicians.

XXI. Psychiatric Emergency Clinic

At the Bronx Municipal Hospital in New York, a unique service has been offered during the past couple of years with remarkable success. The operating principle is based on offering immediate psychiatric consultation to anyone who asks for it. Two residents in training are kept on call during all hours of the day and night to see any patient who presents himself. The patients are not necessarily in a state of emergency, but the immediate availability of the service is helpful in preventing

the development of more serious problems in patients. The service offered is brief, and oriented toward making a rapid diagnosis leading to simple advice or referral.

XXII. Case-Supervised Treatment

As a way of expanding the resources of a psychiatrist there have developed some novel experiments which look very promising. In New Jersey, for example a private psychiatrist has arranged with a group of pediatricians to meet with them as a group at weekly intervals to supervise their treatment of specific psychiatric patients; the psychiatrist also sees the parents. In Vermont, a private psychiatrist has expanded his coverage of patients by seeing patients in consultation, then referring them back to the family physician for treatment. He then meets with the physicians individually to guide them in the management of their cases.

XXIII. Pre-Commitment Clinic

At the Butler Hospital in Rhode Island a valuable experiment was conducted recently. Ordinarily, patients received at the hospital had been routinely admitted at the request of the committing physician, and the usual protracted hospitalization ensued. A program was recently established, however, for the purpose of thoroughly screening each patient prior to the commitment procedure. A psychiatrist undertook an examination of the patient while a social worker interviewed the family. By exploring possibilities short of hospitalization, it was found that one-third of the patients could be referred to some service in the community for treatment, thus avoiding hospitalization. It would seem reasonable to institute such a service in conjunction with all mental hospitals.

XXIV. Contract Clinic

The Veterans Administration, after World War II, was able to extend outpatient psychiatric treatment to many patients which could not be serviced by VA facilities by contracting with private psychiatric services. This program not only made it possible to

keep patients out of hospitals, but was also valuable in stimulating the growth of private psychiatric facilities. Unfortunately, the VA has sharply curtailed this program by directing its funds toward building up its own facilities.

State Mental Hygiene Departments could profit by experimenting with this method. A close example is found in Pennsylvania where the state has been empowered by the legislature to contract with local general hospitals to treat indigent psychiatric patients. A huge advantage to this system is that of preserving the private doctor-patient relationship which helps dignify the treatment process.

XXV. Foster Home Care

Extensively used in New York State, this concept has been tried elsewhere with a fair degree of success. It is chiefly designed for hospitalized patients who have no family resources to turn to. Private families in the community who are willing to offer living accomodations, a job, and some semblance of home life are asked to care for discharged patients. This usually restricts the service to farming families since few other homes would be able to provide both job and housing. The social service department of the hospital screens the families offering assistance and follows the patient. In recent years, the acute shortage of farm labor has got many farm families interested in providing Foster Home care.

XXVI. Patient-Sponsored Clubs

Patients discharged from psychiatric hospitals face both realistic and unrealistic obstacles to the formation of relationships with other people. In some instances, groups of these patients have spontaneously associated themselves in social clubs. The potential dangers of these kind of unguided activities probably outweigh their social advantages. If such groups invited professional guidance, or cooperated with each other for some specific purpose, such as reinstatement of their civil rights, they might be of more benefit to their members. Those which have developed were somewhat modeled along the lines of Alcoholics

Anonymous but, lacking a specific target for their attention, have tended to deteriorate.

XXVII. Family Guidance Programs

Recognizing the need of the psychiatric patient for interested, enlightened family relationships, some psychiatric centers have set up programs for patients' families. These are generally group discussion programs designed to enlist the family's help in restoring the patient to the community. The method has been particularly helpful when directed toward the parents of hospitalized children, especially retarded children. Out of such groups is likely to come a source of hospital volunteers, or powerful lay sources of pressure which might be brought to bear on state legislatures leading toward improvement of mental health facilities.

XXVIII. Preventive Clinics

In general, local and state public health facilities have become rather highly developed and well-staffed, in spite of general decline apparent in the demand for their services. The rapid diminution in importance of epidemic diseases, water and food problems, tuberculosis and venereal disease has stimulated public health authorities to seek new functions for the resources they have developed. In many areas, public health departments have shifted some of their activities to such services as well-baby clinics and others based mostly on education and prevention. Inevitably, the people who staff these clinics meet many opportunities for providing preventive mental health service. In one or two instances, public health nurses have been provided with regular psychiatric consultations to help guide them in the mental health education of their clients. This method has not been tried on a large scale yet, but deserves encouragement and development. In Georgia, public health nurses have been used to follow-up discharged mental hospital patients with success, but this system would not quite qualify as a "preventive" service.

XXIX. Remote-Control Consultation Service

Although this method has not yet been tried, it deserves a trial on an experimental basis. The technique would be used to provide psychiatric consultations from a considerable distance. It would employ two-way closed circuit television hook-ups to provide a way by which the consulting psychiatrist could interview a patient.

It would be most effective if the interview took place while the patient is in the presence of the referring physician as a way of diminishing the impersonality of the microphone and TV monitor. Using the referring physician to catalyze the relationship which is made somewhat awkward by the apparatus, it is quite conceivable that a very adequate interview could be conducted. The consultant would, of course, transmit his recommendations to the referring physician.

Technically, this type of service could be operated as follows: The consultation center would have its own closed circuit television equipment. Contact with the patient and referring physician would be made through rented coaxial cables. The patient and referring physician would employ the studio of a local television station during a period of the day when it is not broadcasting. It is more than likely that television equipment manufacturers would be of invaluable assistance in setting up a pilot project. (The manufacturers are: Dade Television, R.C.A. and General Precision Laboratories.)

XXX. Summer Camp Program

There have been a few examples of psychiatric treatment programs for children in existence (such as Jewish Board of Guardians in New York and Devereux Schools) which provide a brief period of supervised therapeutic activities in a vacation setting. Most of those in existence have been operated primarily by social workers, although in one or two instances psychiatric supervision has been available. The particular appeal which a program of this sort offers is through capturing the patients' cooperation by providing a holiday or vacation atmosphere. In Connecticut, an experiment was recently tried of offering a two-weeks' period of camping for chronic hospital patients. It was quite successful.

There is considerable room for the development of similar programs for adults wherein an intensive psychotherapeutic program might be offered to patients who, at the same time, are spending their vacation in a resort setting with their families. The holiday atmosphere can be profitably exploited as a means for assisting in the enriching and maturing of family relationships. State hospitals might follow the example of the Connecticut experiment as a way of giving chronic patients a taste of life outside the hospital, thus offering an incentive which might lead to earlier discharge.

Camp programs are particularly valuable as adjuncts to clinic and hospital programs for children.

Washington Clinic, Wisconsin and Western Avenues



WHAT'S THE DOCTOR'S NAME

Identify this famous physician from clues in the brief biography.

PAGE 81a

The Attitude of the Physician



The physician should never allow his enthusiasm for sports to color his judgment toward athletics and athletic injuries. The athletic program should remain in proper perspective at all times.

M. L. TREWIN, M.D. Flint, Michigan

M edical supervision of students in sports at all grade levels is essential. Those responsible for athletic activities should first ascertain that the student is fit and then see that they remain so during the period of participation. It is vital that the physician understand both the sport and the participant and be interested in both. In general, more highly competitive sports with bodily contact demand more rigid medical supervision.

Pre-participation medical examinations have a three-fold purpose:

- 1. Elimination of the unfit;
- qualification of the sports in which the subject may safely engage;
- identification for pre-participation treatment.

Physiological maturity should be assessed to determine if the youngster will be able to compete in the proposed sport. Obvious immaturity should disqualify, regardless of age equality. This does not infer that the physical giant should be the only sports participant. Students poorly coordinated or physically handicapped in certain other ways, should be encouraged to participate in programs commensurate with their abilities and to compete with other such persons. The physician should classify all prospective participants.

It is also the duty of the physician to understand the hazards of the sport, so that he may counsel the athlete and his parents regarding participation. A protective shield need not necessarily be erected around the high school students of America, for all life is risk and

Toward Athletics

without courage, life is not worth living. It is desirable for a high school student to be part of a well-conducted program of athletics despite some calculated risks.

Once the athlete has qualified, the physician's role is concerned with the care of injuries and illnesses. Minor colds, abdominal aches, superficial infections, and the like, must be treated early. The decision to return an injured player to activity and to what degree, rests upon the physician. Most coaches and some trainers prefer to avoid this. The team doctor is not infallible and decisions are often not clear-cut. In this respect, the physician should thoroughly know each player to be able to determine the degree of activity to be permitted. Such knowledge will often prevent minor injuries from becoming severe. The team physician might be likened to the inspector who approves a completed car at the end of the assembly line, as well as to the mechanic who serviced it.

The current medical athletic program in Flint, Michigan is simple but effective. The surgical residents of Hurley Hospital, assisted by interested interns, act as team physicians for the Public High Schools. Selection of participating doctors is based upon interest in athletics and ability. Those without experience are given in-service training during the sport season.

Usually two surgical residents and one intern are assigned to each team. The senior resident is the team physician; the junior resident and intern are his assistants.

The care of athletic injuries differs little, if

any, from the care of injuries from other causes. More frequent observations are made, however, during convalescence and return to active play is graduated. A player is not to be kept from the sport needlessly. "On the field" decisions must be accurate.

It is important that the physician attending practice sessions or games remain in the background until called. He should not run onto the playing field the moment a player fails to rise. This is the duty of the trainer who will call the physician when needed. It is essential that the doctor gain the confidence of players, coach, and trainer by maintaining an attitude of quiet interest. He is never to interfere during chalk talks, practice sessions, games, or between-period pep talks.

Training of the resident or intern is difficult. Frequently he becomes so interested in the game that his examination of a player may be cursory and inaccurate. He must learn that the best place to examine a player with more than superficial injury is the dressing room and that this is the best done at the time of injury, rather than at half-time, or at the end of the game. There the player is away from noise and excitement, his clothes may be removed, and a more definitive examination be done, both to his benefit and that of the team. The uninitiated too readily considers the team as "his boys" and the urge is strong for him to continue treatment of moderate to severe injuries. However, the resident or intern never treat injuries that keep the player out of the sport for some time. Rather, the injured athlete is referred to his family physician. The latter is informed by phone or note the nature of the injury and the emergency treatment given.

The duties of the team physician here in Flint are basically these:

PRE-SEASON: In the pre-season period a complete history is taken on the new athlete with special reference to past illnesses of heart, liver, or kidney. A thorough physical examination is done, directed mainly toward musculoskeletal and cardiac abnormalities. A record of illnesses during the past summer is taken from returning athletes and the examination

If is our belief that any team important enough to have a coach, deserves the services of an interested team physician.

directed especially toward the site of previous injury. Injured joints are tested for strength and range of motion. The new boy or girl is then categorized as to age, developmental deformities, and in which sport he or she may safely engage. Recommendations are made concerning remedial surgical conditions.

SEASONAL: During the season the team physician attends all contact scrimmages. He is available at these times to see newly injured players and for followup care of others. He attends scheduled games and always remains in the background, maintaining an attitude of non-interference until needed.

A record of injuries is kept on all players indicating type, mechanism, and degree of in-

jury, time (period of play), place (i.e. practice or scheduled game), treatment, and length of time removed from active sports. After a scheduled game, the team physician returns to the dressing room and examines all injured players.

It is very important to gain the confidence of the players, so that they will willingly present all injuries for examination. The greatest fear of a player is to be kept out of future practices or games. This is also a concern of the coach who sometimes feels the doctor is holding a star out of play unnecessarily. For this reason, the physician must convince everyone that he too, wants the athlete back in the game as soon as possible.

In summary, the team physician is a positive figure in sports who permits only qualified persons to engage; maintains a high standard of physical development and health; keeps minor injuries from becoming severe, and prevents severe injuries from becoming crippling or fatal.

> Hurley Hospital Begole Street



STOP AT CORONER'S CORNER . . .

Read the stories doctors write of their unusual experience as coroners and medical examiners.

PAGE 45a



EXTERNAL OTITIS

A new material for treatment

IRVING L. OCHS, M.D. Annapolis, Maryland

External otitis is, in fact, an acute dermatitis of the skin of the ear canal and can be effectively treated with a wet dressing, as is acute dermatitis in other parts of the body. The ear canal has the advantage that the wet dresing can be applied as a wick, which enables the patient to be ambulant.

In a previous report, we discussed the use of aqueous acetic acid with dilute Burow's solution as an effective means of treating external otitis.1 The effectiveness of this technique depends on the anti-bacterial effect of acetic acid. This has been shown by the author, and others, to be a manifestation of the acetic acid molecule and not a function of the pH.2-7 Acetic acid is particularly effective against pseudomonas, which is the most common pathogen in this disease. It is also effective against other organisms, gram-negative and gram-positive, which often affect the ear canal. Acetic acid is bacteriostatic in concentrations well below those used as a topical medicant. Acetic acid, added to beef heart infusion broth, will completely inhibit the growth of B. pyocyaneus (Pseudomonas aeruginosa), B. proteus and other gram-negative bacilli in a concentration of 0.06%. Increasing the concentration to 0.3% results in complete inhibition of most organisms. Ludwig⁸ has shown that human split skin grafts will grow when completely immersed in 0.5% aqueous acetic acid.

For the past four years, realizing that the Burow's solution was not contributing significantly to the results, a 2% acetic acid solution has been used alone to saturate the wick, with equally good results. About two hundred ears were treated per year (for the past four years) by the author. During this interval, there was only one ear that failed to respond to this type of therapy.

Despite the excellent results obtainable with aqueous acetic acid, there are certain short-comings of the technique. External otitis is a disease of hot weather and the aqueous acetic acid evaporates quickly, requiring frequent replenishment. Patients are often lax in their self-treatment and often fail to maintain the wick in a saturated condition, as prescribed. Occasionally, when the wick is removed, it is adherent to the tissue and some trauma results. A third minor problem is maceration of the

superficial horny layer of the skin because of continued contact with the aqueous solution.

The author sought to eliminate the shortcomings of the aqueous medication by developing the anhydrous material, the use of which is described in this paper. This material is a solution of 3% 1-2 propane diol diacetate, 2% acetic acid, with 0.02% benzethonium chloride (which contributes detergent and germicidal properties), in propylene glycol.* This composition is bactericidal, within thirty seconds, against Pseudomonas, Proteus, Staphylococcus aureus, Streptococcus pyogenes and Diplococcus pneumoniae. In this mixture, a higher concentration of acetic acid is possible and there is therefore a more prolonged availability of the acetic acid to the surface of the skin. This high concentration of acetic acid is not irritating to the skin and in the series here reported, only two patients, of the total, complained of irritation. Even these, though complaining mildly, did not discontinue use of the drops. The non-aqueous vehicle acts as a reservoir for the glacial acetic acid, allowing it to diffuse slowly to the tissue there providing effective therapeutic concentrations of aqueous acetic acid by dilution with body fluids.

Because of the non-volatility of the vehicle used, there is practically no evaporation. Patients have been treated from day to day with no added solution, but usually, they were told to add a few drops to the infected ear two or three times per day. Since the inflammatory edema of the canal generally subsides promptly with this method, the diameter of the canal increases to accept additional medication. Less maceration of the skin is seen with this technique, as compared to the previously described aqueous method. An additional advantage of this material is found in the emollient quality, acting as a lubricant, facilitating introduction of the wick.

Briefly, the technique here reported, consists of the following: The ear is carefully cleaned, by gentle mopping or by irrigation. The skin of

* Material used in this study was supplied by Wampole Laboratories as VöSoL Otic Solution®.

TABLE 1	
ORGANISM	INCIDENCE
Pseudomonas	35
Staphylococcus Aureus	12
Bacillus Proteus	9
Green Strept.	3
Diphtheroids	2
Aspergillus	2

NOTE: Several organisms were occasionally found in one ear of the fifty patients whose ear was cultured.

TABLE 2		IDENCE
DISEASE	INC	IDENCE
Acute diffuse		120
Chronic diffuse		7
Furunculosis		7
Erysipelas		3
Myringitis Bullosa		3
Impetigo		2
	Total	142

the canal is dried with a fine cotton-tipped applicator. A soft, cotton wick is wound on a metal applicator stick, in a clockwise direction, in such a manner so that about 1/4" of soft cotton extends beyond the metal tip. A few drops of the solution are placed in the canal. The wick is then inserted into the ear canal with a gentle, clockwise screwing motion. The wick should fit snugly, but not firmly. It is emphasized that this is a loose wick and not a firm pack. The applicator is then removed by unscrewing counterclockwise, leaving the wick fully inserted. More medication is added, until the cotton is thoroughly saturated. The patient is given a bottle of the solution and told to apply three drops three times a day. The patient is advised that he may experience pain for the first day, but that it will be less on the second day. If the patient has had considerable pain on the day before treatment, an analgesic such as codeine may be given to help relieve pain during the first twenty-four hours. The patient is asked to return after two days and the wick is removed. If any significant swelling or redness persists, the wick may be put back in place, but this is usually not necessary. Almost all patients are asymptomatic by this time and treatment is continued for three more days by instillation of two or three drops, three times a day. After that, instillation of one drop in the evening is adequate for prophylaxis.

In patients where there is extreme swelling of the canal, such that they cannot initially be cleaned adequately and/or the wick cannot be inserted the full length of the canal, some exudate or odor might persist. This can always be remedied on the return visit, when there is marked diminution of swelling of the canal.

To date, a total of one hundred and fortytwo patients have been treated with the acetic acid preparation. All patients were restored to normal within one week and the majority within four days. Many had been previously treated with a gamut of antibiotic and other topical medicants without improvement. The first fifty cases had bacteriologic studies. Of this group, the predominating organism was Pseudomonas (70%); there was a scattering of Proteus, Staphylococcus, green strept., Diphtheroids, and aspergillus, as shown in Tables 1 and 2.

At least one-half of the patients had itching of their ear canals and it was probably scratching that initiated the infection. Only ten had obvious underlying dermatitis, seven with seborrhea, one with psoriasis and one with allergic dermatitis.

Many patients had long-standing disease, including one four-month-old infant who had a bilateral Pseudomonas infection from the day of birth. This baby had an unremitting, profuse, foul, green discharge from each ear. It had been under continuous treatment by its pediatrician who had administered every topical and systemic antibacterial medication that he thought would be effective. This discharge cleared completely and immediately. The patient has remained free of discharge to date.

Patients, including adults had fevers to 102° F. and these cleared with no other medication. An eight-year-old boy who had been treated by his pediatrician for one week, with penicillin and tetracycline, became progressively worse. His pain, fever and swelling increased. He was hospitalized with a diagnosis of mastoiditis and subperiosteal abscess. This was, in fact, an infection of his canal, due to pseudomonas, with surrounding cellulitis. He was discharged from the hospital, after one day of treatment with this medication.

It is noteworthy that these cases subside promptly using a material containing no antibiotics. The absence of antibiotics precluded allergic response in the patient and by not sensitizing him, minimized future difficulties.

References

- I. Ochs, I. L.: J.A.M.A. 142:1361, 1950.
- 2. Owen, C. R.: J. Bact. 52:353, 1946.
- 3. Research Department, Wampole Laboratories.
- 4. Glassman, H. N.: Bact. Rev., 12:105-148, 1948.
- Bloch, K.: Physiol. Rev. 27:574, 1949; Lorber, V.: Am. J. Physiol. 45:557, 1946.
- 6. Green et al.: Bull. N. F. Comm., 11:91, 1943.
- 7. Ochs, I. L.: Arch. Otolaryng. 52:935, 1950.
- 8. Ludwig, F. E.: Surgery 19:486; 1946: ibid. 19:492, 1946.

51 Southgate Avenue



New Hope for the Hemiplegic

The muscle function of strokeparalyzed limbs can be restored, to a significant degree in most instances, if appropriate treatment is undertaken at the proper time.

Although much has been written about the rehabilitation of handicapped stroke victims—after spastic paralysis of limbs has reduced one side of the body to a state of helplessness—little or nothing has been said about what the physician can do to prevent the major part of this paralysis.

From medical school instruction and observation in practice, we have learned to expect a hemiplegia to come about first as a flaccid paralysis lasting about three weeks, and followed shortly thereafter by spastic rigidity of limbs. We are familiar with the stiff leg and the foot-scraping walk of the victim as he holds his rigidly flexed arm against his abdomen with tightly clenched fist and fingers digging into his wasted palm. We have noted that some muscle power is eventually recovered but that it is unable to move the stiff joints and so is of little value to him.

Although in active medical practice for more than thirty years, it was only about five years ago that it occurred to me that the orthopedic principles, used so successfully in nursing of patients who have poliomyelitis, might be adaptable also to hemiplegics. The same obstacles of stiffness of joints, contractures of muscles, tendons, and overstretching of weak muscles by their stronger opponents are present here as in infantile paralysis. Accordingly, a treatment schedule employing these principles was devised for my first patient who was a 69-year-

old Negress, (Mrs. B. D.) admitted with complete flaccid paralysis of left arm and leg and some facial muscle weakness. Prior to her stroke she had been the pianist for her church. As treatment proceeded, I encouraged her to believe that if she would cooperate she might be able to regain the use of her arm and leg -and I told her I would not be satisfied until she played the piano again! Her incredulous expression, as she surveyed her helplessly paralyzed limbs, proclaimed more eloquently than her freely spoken words the skepticism and doubt she felt. We persisted, however, and eventually succeeded in enlisting her cooperation, and now she walks without a cane and she plays the piano!

A second patient is an 80-year-old woman (Mrs. B. W.) admitted also with complete left side paralysis, who is also walking now without crutch or cane. While she had no finger skills for her left hand, as did the first patient with which we could measure the degree of return of muscle and joint function, she can extend the fingers as fully and as readily on the left as she can on the right, and she can use the arm and leg quite efficiently in her daily activities. Patient cooperation in the second case was much more readily enlisted than usual because she had heard of the successful recovery of the first patient.

Although the patients here described are taken from private practice and the methods used are especially adaptable to the non-institutionalized group, they could readily be used in institutions which provide custodial care provided facilities, and personnel are available

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for individualization of patients. As a matter of fact, in an institution, more opportunity would be provided for group therapy and for the advantages that might come from an esprit de corps that could be developed as a stimulant to patient morale.

The Approach

First, we must remember these patients are usually in advanced years. They are, therefore, much more easily discouraged by a serious illness or handicap, and readily sink into a state of depression and helplessness. They have seen stroke victims turned into bed or chair-fast invalids and permanent cripples, and they naturally have visions of such fate awaiting them. Our problem, psychologically, then, is to steer them away from the attitude of invalidism in which they may have no desire to try to do anything for themselves and so become a grievous family or community burden. We must stimulate hope and desire for recovery and for rehabilitation.

In the effort to arouse hope and desire for recovery, we need the assistance of the family and the patient's close friends. A private conference with family and friends, in which the great value of their encouragement is stressed, is very important. A schedule of passive exercises and massage of the limbs is set up, and family and friendly volunteers are enlisted and instructed in the movement and massages that are to be given.

It is well to explain to the patient and his family the changes that are to be expected. The paralysis will be flaccid for about two



Mrs. B. D. had a stroke at age 69 with complete flaccid paralysis of left arm and leg. Photograph nearly three years later shows complete recovery of extension of wrist and fingers on the affected side. She is able to play her piano again!

Mrs. B. W. had a stroke at age 80 with complete flaccid paralysis of left arm and leg. Photograph 14 months later shows complete recovery of extension of wrist and fingers of the affected side. She walks normally without cane or crutch.



weeks. In the third week, reflexes will begin to return and very, very gradully muscle power will be recovered. Since the muscles will be very weak at first, it is necessary to keep every joint flexible so that even the weak muscles may be able to produce movement.

At first the patient may be skeptical of any possible recovery of function, but as he sees the changes you have predicted take place, he will begin to show an encouraging attitude and will hope you are right all the way. He can even do some of the passive movements himself with his "good" arm, and he should be urged to do so. He has nothing else to do anyway, and it will help him occupy his time. Also, it stimulates initiative in beginning to do things for himself.

Treatment Schedule

I. General care to meet the indications of treatment for the emergency, such as shock, control of hypertension, if it persists, to avoid pneumonia and urinary tract infection, to regulate intracranial pressure if necessary, and to control other complications, if any are observed. One important warning is to avoid the administration of too much fluid, as too much intravenous fluid can kill these patients. If a special need exists for correction of dehydration, one had better watch the hematocrit carefully.

II. Prophylactic measures:

1. Begin passive movements of muscles and joints after the first forty-eight hours, or as soon as initial shock has subsided.

2. Support the foot to maintain the "walking" position by sand bag, foot splint, or even plaster cast if necessary.

3. Extend the wrist and fingers frequently and maintain them in these positions for short periods of time, at two hourly intervals during the day. Flex and extend ankle, knee, elbow, wrist, and toe joints to their full range with the same daily regularity.

 Begin reassurance and encouragement early and make this a daily routine in your service to the patient.

(Of course, we cannot guarantee a result

and, in our enthusiasm, must not give the impression to the patient or family of any such promise—lest we invite medico-legal action, should results not measure up to their expectations. But we can arouse and inspire hope and courage that will insure full patient cooperation—an indispensable requirement for the best results.)

Physiotherapy

About the third week hospital therapists are consulted for a positive program of active exercise and training. Thereafter, nursing, as well as exercises are supervised by them. All joints should be flexible and no muscles should be overstretched or shortened. If these conditions prevail at this stage, therapy can proceed on schedule and results are prompt and substantial and treatment can be completed with a minimum of sessions.

In cases where therapists are not available, the physician can outline and supervise treatment which can be carried out by practical nurses or even by members of the family. In this case, the physician may wish to consult a standard work on therapy, 1, 2 or he may simply devise a set of graduated active movements and exercises suited to the individual ability and intelligence of the patient to be treated.

Modern equipment is very helpful but not absolutely essential, and sometimes a craftsman friend may be found who will design and make simple appliances that can be used, once he understands the problem. For example, two light-weight, waist-high carpenter's saw benches fastened together by boards across one end may be mounted on wheels for use as a walking frame. Pulleys, with or without spring resistance, can be economically constructed for arm exercise. Light leather straps may be used to secure the paretic hand to the handle. Sponge rubber balls of proper size can usually

^{1.} William Bierman, M.D.: Physical Medicine in General Practice, "Hemiplegia," Paul Hoeber, Inc., 1952. Pp. 601-604.

^{2.} Robert Sheslack, PhGRP, PTR, and Sidney Licht, M.D.: Handbook of Physical Therapy, "Cerebrovascular Disease," Paul Hoeber, Inc., 1956, Pp. 119-123.

be found in the variety store for retraining grip and grasp functions of the hand. As a means of assurance to the timid patient who may insist at first that he cannot stand or that he would fall if he tried to do any standing exercises, the shoulder supports and pads of a pair of crutches may be mounted on the sides of the walking frame at just the right height and spacing for shoulder support.

Building Patient Morale

Some suggestions for overcoming the patient's skepticism may be helpful, as this is a difficult hurdle in some instances. Usually by the end of the first week, reflexes obtained by tapping the dorsum of the forearm or patellar tendon may serve to convince him for the first time that his muscles are not "dead" but still have life in them. This demonstration may be the source of the first real hope the patient has for recovery.

A second demonstration may be set up for the latter part of the second week. During the first week, you can tell the patient that you will expect him to begin moving a finger, or a toe, or an ankle in about ten days. He can be encouraged to watch for this development and to make the most of it by extra effort. Then, when it happens, you can remind him of your prediction—but you won't need to do sohe'll remember it!! If movement comes between ten and fifteen days you can assure him that he is on schedule and that he now has a steady job: exercising and strengthening those muscles. (These ideas may sound childish, but they may mean a lot to most patients and can be utilized to considerable advantage in building morale.)

Causes of Method Failure

Two obstacles may be encountered that can cause failure. One is *mental depression* and the other is *brain damage*. Success in restoring stroke-paralyzed muscles depends to a large extent on patient cooperation, and failure will result in direct proportion to its weakness or deficiency. One case report from my series illustrating each may be of interest:

A 70-year-old married, but childless, white woman was admitted with complete right hemi-Treatment, as outlined above, was started and friends enlisted to assist in the stimulation of morale. Trained nurses attended her and the prophylactic muscle and joint precautions were observed. She had a host of friends and they gathered around eager to encourage and help her. Flowers, messages, telephone calls, and well-wishes were showered upon her. However, a gloomy depression settled over her. She would do nothing for herself. She did not hope for improvement, she wished only to die. In fact she tried vainly to persuade me to promise that I would do nothing to keep her alive!

With return of muscle power, which began in the third week, therapists began working with her, but could not get her to move arm or leg voluntarily except under our constant prodding. Her joints were kept flexible for a month, her fingers were frequently and regularly extended and foot held in the walking position. Finally she went home where she persisted in this same negativistic attitude. She still lies helplessly in bed. Her arm and leg have now taken the characteristic spastic hemiplegic positions—and we have ceased our efforts to rehabilitate her.

Perhaps the new drugs now being developed for control of depressions might have been of service had they been available to us then, and I think they should certainly be tried. The only other effective treatment would be contra indicated because of danger to a brain already damaged that shock therapy might make worse.

The second failure was a Negro man about 90-years-of-age. Although he had retained remarkable vigor of body and mind for his advanced age, his stroke caused so much brain damage and personality change that we could get no cooperation at all from him. His family of twelve children gathered around him and served in relays day and night at his bedside. They never gave up.

His reflexes and muscle responses began returning toward the end of the second week but he showed no interest whatever in the training schedule we tried to initiate. His attitude was apathetic. He seemed to understand what we said but remained as unimpressed as an infant as to its value to him. He remained in the hospital about four weeks during which time, in spite of the efforts of family, friends, and therapists, no progress whatever was made. However, some six weeks after his return home he began to show an interest in learning to walk again. The family encouraged him and therapy was again started. Now, after a year, he walks with a cane and has regained some use of his arm. Therapy has been effective in restoring some of his hand movements and he

has been spared some of the spastic contractures and muscle rigidity that so often have followed hemiplegia in untreated cases. This case may demonstrate that even considerable brain damage, leading to marked apathy and lack of understanding, often very slowly improves, and we should not give up hope too soon.

Selection of patients, so as to concentrate effort on those most likely to respond to therapy, can make the effort so handsomely rewarding that even the busiest physician can afford to undertake it. Come to think of it, how can he ignore such a challenge?

Summary

- 1. Orthopedic principles of early massage and passive movements of stroke-paralyzed limbs to prevent contractures, shortening of muscles, and stiffening of joints, that have been so useful in polio nursing, are also adaptable to hemiplegics.
- 2. A schedule incorporating these principles which has been used successfully by the author for a number of years is outlined and two illustrative case-records are reported.
- 3. Techniques of approach, team play of nurses, family, friends, therapists, and the physician are discussed and their place and importance emphasized.
 - 4. Obstacles that may cause failure are il-

lustrated with two case reports.

5. This method is proposed as a means whereby the family physician may meet the challenge of this opportunity for a new breakthrough in service to the rapidly expanding senior citizen segment of our population.

Note: While the method outlined in this article is entirely original and I know of no previous publication of it, I have recently seen a film produced by the American Heart Association (Cerebral Vascular Disease, The Challenge of Management) that gives almost every detail of it. It can be heartly recommended.

Scarbrough Building



Oral Maintenance Therapy After Parenteral Digitalization

hen oral digitalis therapy should begin after rapid intravenous or intramuscular digitalization, is one of the many questions on the use of digitalis which has not been completely resolved. The literature on digitalis is indeed voluminous concerning such subjects as when digitalis is indicated, what the most effective and least toxic preparations are and how to employ them.

This report describes the use of acetyldigitoxin (Acylanid®*) for digitalis maintenance therapy and deslanoside which is desacetyllanatoside C (Cedilanid-D®*), a hydrolysis product of lanatoside C which is a widely accepted glycoside for parenteral administration. Rothlin, Bircher and Schalch¹ and Loeffler, Esselier and Forster² demonstrated that acetyldigitoxin is rapid in action and that it is well absorbed from the gastrointestinal tract. Hedlund³ observed pharmacologically that Cedilanid-D has the same therapeutic properties as lanatoside C.

Enselberg, et al.4 started oral digoxin (0.25 mgm. once or twice a day) and acetyldigitoxin (0.1 mgm. once or twice a day) four to twelve hours after the final digitalizing injection of

deslanoside intramuscularly. Batterman⁵ recommended that the maintenance dose be given twenty-four hours after initial digitalization. Friedman⁶ also waited twenty-four hours after rapid parenteral digitalization before beginning maintenance therapy. Hoesley and Luan⁷ began oral maintenance therapy four hours after rapid digitalization. Hellman and Port⁵ began maintenance therapy on the same day. Goldberger, Stroud, Lown and Levine and Kay¹² have made no specific recommendations for the time to start maintenance therapy.

In view of the lack of unanimous opinion, this study was undertaken to determine, if possible, when the optimum time to begin oral maintenance therapy would be after parenteral digitalization. For the digitalizing drug, deslanoside (Cedilanid-D) was used since it has the advantage of rapid onset of action, adequate margin of safety and low incidence of side effects as shown by Arvanis and Luisada¹³ and Eskwith and Fogarty.14 Redigitalization with deslanoside is not necessary and no difficulty is encountered in changing to the oral form of digitalis as described by Gold.15 For maintenance, acetyldigitoxin (Acylanid) was chosen since it has been reported to be a well tolerated and effective cardiac glycoside, (Maher and Pullen¹⁶ and Prinzmetal and Kennamer, 17 Sanazaro,18 Gold and Bellet,19 Kuzma, Thorner

^{*}The desianoside (Cedilanid-D®) and acetyldigitoxin (Acylanid®) used in this study were furnished through the courtesy of Mr. Harry Althouse of Sandoz Pharmaceuticals.

TABLE 1 ETIOLOGY OF HEART DISEASE

Arteriosclerotic	13
Arteriosclerotic-Hypertensive	14
Congenital	1
Coronary	5
Hypertensive	11
Infectious	1
Pulmonary	2
Rheumatic	13
	_
TOTAL:	60

TABLE 2 INDICATION FOR DIGITALIZATION

Auricular Fibrillation	12	(20%)
Auricular Fibrillation and Congestive Heart Failure	19	(31.6%)
Congestive Heart Failure	29	(48.3%)
TOTAL:	60	100%

TABLE 3 AFTER PARENTERAL DIGITALIZATION

HOURS	PATIENTS
24	10
12	10
6	10
4	15
0	15
	_
TOTAL:	60

TABLE 4

	DOSE O	F DES	LANOS	IDE IN	MGMS.
INDICATION	(0.8	1.2	1.6	2.0	2.4)
Auricular Fibrillation	1	2	6	3	0
Auricular Fibrillation and Decompensation	0	5	9	3	2
Decompensation	0	7	17	4	1

and Griffith,²⁰ Brill, Burgner and David,²¹ Crouch, Hejtmancik and Herrmann,²² Goldfarb, Thorner and Griffith³² and Zilli and Luisada,²⁴) and because the author is familiar with its therapeutic properties and limitations.

The author realizes and subscribes heartily to the proposition that whenever possible, oral digitalization should be used, but because of the nature of this study all patients were digitalized by the intramuscular route. In view of the fact that the action of deslanoside is almost the same when given either intravenously or intramuscularly, the only difference being in the onset of action, it was decided to use the intramuscular method because of its greater margin of safety, as reported by Jennings, Makous and Vanderveer.25 Sanazaro26 reported his results with deslanoside intramuscularly in forty patients. He found that the average digitalizing dose was 2.0 mgms., and the average maintenance dose 0.6 mgm. Since the onset of action is slower than that following intravenous administration, the intramuscular route is not suitable in a state of cardiac emergency.

Material: Sixty patients were the subject of this study. They ranged in age from nine to eighty-eight. Forty-one were male and nineteen were female. All patients had heart disease and Table 1 shows the etiological classification of the types of heart disease.

Additional diagnoses were made in some of the cases since some had neoplastic disease, infection, renal disease, pulmonary emboli, silicosis and other major illnesses.

The indications for digitalization were present in all cases, namely congestive heart failure (Class III or IV) with or without auricular fibrillation and auricular fibrillation with rapid ventricular response. Table 2 shows the classification of indications for digitalization.

Method

All patients were given deslanoside 0.8 mgm. intramuscularly usually in the gluteal region, and 0.4 mgm. every four hours until satisfactory slowing of the ventricular rate occurred and/or conversion to normal rhythm in those

cases with fibrillation or, in the cases of congestive failure, satisfactory clinical digitalization as manifested by relief of dyspnea and orthopnea, increase in urinary output, decrease in heart rate, decrease in pulmonary congestion, weight loss, etc. When this occurred, patients were divided into five groups without selection and acetyldigitoxin was given orally in doses of 0.2 mg. daily after an interval of twenty-four hours, twelve hours, six hours, four hours and at the same time as the last intramuscular dose of deslanoside, depending upon in which group the patient was placed. Table 3 shows the number of cases with each time interval.

Other measures such as bed rest, restriction of salt intake, oxygen, antibiotics and others were used when indicated. No diuretics either oral or parenteral were used until after one hundred and twenty hours following the first dose of deslanoside. Conversion to normal rhythm with quinidine was attempted in all cases with auricular fibrillation that did not convert with digitalization alone, but quinidine was not given until one hundred and twenty hours after the first dose of deslanoside. Frequent electrocardiograms were made on all patients to observe effects on rate and rhythm and all heart rates were taken at the apex with a stethoscope. When indicated, necessary laboratory procedures were carried out. Sites of injection were inspected for swelling and nodules and patient's complaints of pain or soreness were recorded.

A break in digitalization was considered to have occurred if fibrillation reoccurred after conversion to normal sinus rhythm, if ventricular rates reverted to or near predigitalization levels, or if clinical evidence of decompensation reoccurred.

Results

The varying dose of deslanoside required to digitalize patients or to convert them to a normal sinus rhythm is shown in Table 4.

Table 5 shows that twenty of sixty (33%) patients, had what was interpreted to be a break in digitalization but the greater percentage occurred in those with fibrillation and

TABLE 5 MAINTENANCE

		NON	
	EFFEC- TIVE	EFFEC- TIVE	TOTAL
Auricular Fibrillation	9	3	12
Auricular Fibrillation			
and Decompensation	5	14	19
Decompensation	26	3	29
	_	_	_
TOTAL:	40	20	60

TABLE 6

	MAINTE	NANCE		
TIME BETWEEN PARENTERAL AND ORAL DOSE	EFFEC.	NON EFFEC- TIVE		
24 Hours	4	6	-60%	
12	5	5	-50%	75%
6	6	4	-40%	
4	13	2	-13.3%	
				25%
0	12	3	-20%	
		_		
TOTAL:	40	20	—33%	

TABLE 7

TIME BETWEEN	TOTAL	WITH	WITHOUT
PARENTERAL	RE-	FIBRIL-	FIBRIL-
AND ORAL DOSE	LAPSES	LATION	LATION
24 Hours	6	5	1
12	. 5	4	1
6	4	3	1
4	2	2	. 0
0	3	3	0
TOTA	L: 20	17(85%	3(15%)

TABLE 8 TOTAL WITH AURICULAR FIBRILLATION—31

	CONVERTED	NOT CONVERTED
Digitalis Alone	9	1
Digitalis and Quinidine	7	14
- 10 102 10 10	-	-
TOTAL:	16	15

decompensation; 51.6% had fibrillation yet they accounted for eighty-five percent of breaks in digitalization. However, if this is broken down to the time interval between parenteral digitalization and the beginning of oral maintenance therapy we find, in Table 6, that fifteen of the twenty patients who had breaks in digitalization occurred in those patients where the time interval between parenteral and oral digitalis was six hours or longer.

Another interesting finding can be seen in Table 7 which shows the breaks in digitalization when the time interval between the parenteral and oral digitalis is also compared with the presence of auricular fibrillation.

Eighty-five percent of breaks in digitalization occurred in those patients with auricular fibrillation and seventy percent (twelve of seventeen) of these occurred when the time interval between parenteral and oral digitalis was six hours or longer.

Toxic Effects

Two patients (3.3%) developed toxic effects. One patient developed nausea, vomiting and diarrhea after a total dose of 1.2 mgms. of deslanoside which may have been attributable to the drug. Another, with previous normal sinus rhythm, developed first degree atrio-ventricular block and premature ventricular beats again after a total dose of 1.2 mgms. of deslanoside. Both patients had been given acetyldigitoxin with the last dose of deslanoside.

After twelve hours neither patient had any residual effects and both were able to continue with the study.

Seventeen of the sixty (26.6%) patients complained of pain at the site of injection after the first dose, which was of short duration. In none of the cases was pain severe enough to discontinue the treatment.

There were six deaths in this series, causes of which were confirmed by autopsy, and grouped as follows:

- 1. Carcinoma of lung.
- Acute bacterial endocarditis, pyelonephritis, septicemia.

- Pulmonary emboli, bronchopneumonia, fractured femur.
- Prostatic obstruction, bilateral pyelonephritis, uremia, hypertensive heart disease.
- Carcinoma of breast with metastases to lung and liver.
- Cerebral hemorrhage, cerebral arteriosclerosis, arteriosclerotic heart disease.

None of the deaths were in any way attributable to the medications used.

Another interesting finding, as a continuation of the study, was the percentage of those with auricular fibrillation who converted to normal sinus rhythm.

Perhaps some of the rhythms which reverted to normal sinus rhythm shortly after quinidine therapy was begun, did so as a result of the digitalis rather than the combination of the two drugs as suggested by Jennings, Makous and Vanderveer.²⁵

Comment

Deslanoside has been found to be an effective agent for intramuscular digitalization when employed according to the method used in this study, namely, 0.8 mgm. (4 ml.) as the first dose, followed every four hours by 0.4 mgm. (2 ml.) until full digitalization occurs. The lowest dose required was 1.2 mgms. and the largest 2.4 mgms. in cases of decompensation and the smallest dose required to convert auricular fibrillation to normal sinus rhythm was 0.8 mgm.

Only two patients developed toxic effects both with less than the usual recommended dose of 1.6 mgms.

After initial digitalization, maintenance therapy with acetyldigitoxin was begun at varying times after the last dose of deslanoside intramuscularly. Seventy-five percent of patients who had a break in digitalization were those in whom the maintenance dose was begun six hours or longer after the parenteral dose, and also eighty-five percent of relapses from digitalization occurred in those patients with auricular fibrillation.

This study suggests that continuous full digitalization levels are necessary to control the ventricular rate in cardiac decompensation associated with atrial fibrillation.

Twenty-six percent of patients complained of

pain at the site of the first injection while only ten percent complained of pain which was transient after succeeding injections.

Conclusions

- 1. Deslanoside was used as an intramuscular digitalizing agent in sixty patients beginning with 0.8 mgm. and continuing with 0.4 mgm. every four hours until full effect was obtained.
- 2. The average digitalizing dose in auricular fibrillation alone was 1.56 mgms., in cardiac decompensation alone it was 1.59 mgms., and in combined cardiac decompensation with auricular fibrillation it was 1.64 mgms.
- 3. Maintenance of effective digitalis effect was achieved in twenty-five of thirty patients (83.3%) when maintenance therapy with acetyldigitoxin was given at the same time or four hours after the last digitalizing dose while in only fifteen of thirty (fifty percent) patients

was effective digitalis effect maintained when the interval was six hours or longer.

- 4. Toxic effects occurred in two patients only when maintenance therapy was given at the same time as the last parenteral digitalizing dose
- 5. Auricular fibrillation, if present with cardiac decompensation, requires continuous full digitalization levels.

The method is safe and the drugs are well tolerated and effective. It is therefore recommended that oral maintenance therapy with acetyldigitoxin be started within four hours after intramuscular digitalization with deslanoside.

Bibliography

- 1. Rothlin, E., Bircher, R., and Schalch, W. R.: Zur Pharmakologie des Acetyldigitoxin-a, Schweiz, med. Wchnschr. 83:267 (Mar. 14) 1953.
- 2. Loeffler, W., Essellier, A. F. and Forster, G.: Acetyl-digitoxin ein neuses Herzwirksames Glycosid. Klinisch-pharmakologische Untersuchungen. Schweiz. med. Wchnschr. 83:290, 1953.
- 3. Hedlund, S.: Klinische Untersuchungen mit Cedilanid. Cardiologia 20(Suppl): 1-88, 1952.
- 4. Enselberg, C. D., Davoodzadch, N. and Riahi, H.: Inframuscular Desacetyl Lanatoside C: A Safe and Practical Method of Parenteral Digitalization. New York J. M., 58:4011, Dec. 15, 1958.
- 5. Batterman, R. C.: Observations on the Clinical Use of Digitalis. "Digitalis." 152. Diamond, E. G., Editor, Thomas, Charles C., Springfield, Ill., 1957.
- Friedman, M.: Digitalis Therapy and Intoxication. Modern Concepts of Cardiovascular Disease, XXV:#2, p. 311, February 1956.
- 7. Hoesley, J. B. and Luan, L. L.: Digitalis in Congestive Heart Failure. Med. Clin. N. A., Jan. 1957, p. 45, W. B. Saunders Co., Philadelphia.
- 8. Hellman, E. and Port, M.: Rapid Digitalization of Ambulatory Patients With Atrial Fibrillation. J.A.M.A., Vol. 167, No. 2, p. 215, May 10, 1958.
- 9. Goldberger, E.: Heart Disease, 218, Lea & Febiger, Philadelphia, 1951.
- 10. Stroud, M. W.: Diagnosis and Treatment of Cardio-

- vescular Disease. 346, F. A. Davis Company, Philadelphia, 1957.
- 11. Lown, B. and Levine, S. A.: Current Concepts in Digitalis Therapy. 22, Little, Brown and Company, Boston,
- 12. Kay, C. F.: The Clinical Use of Digitalis Preparations, Circulation, XII No. 2, 298, August 1955.
- 13. Aravanis, C. and Luisada, A. A.: Clinical Comparison of Six Digitalis Preparations by the Parenteral Route, Am. Jn. Cardiology, 1:706, June 1958.
- Eskwith, I. S. and Fogarty, T. F.: The Treatment of Auricular Arrhythmias With Deslanoside. Am. J. Cardiology, 2:579, November 1958.
- 15. Gold, M. A.: Acetyldigitoxin in Clinical Practice. A.M.A. Archives of Int. Med., 100:209, August 1957.
- Maher, C. C., Jr. and Pullen, C. W.: Acetyldigitoxin: A New Cardiac Glycoside. Rocky Mountain Med. Jn. 52:436. May 1955.
- 17. Prinzmetal, M. and Kennamer, R.: Emergency Treatment of Cardiac Arrhythmias. J.A.M.A., 154:1049, March 27, 1954.
- Sanazaro, Paul J.: Acetyldigitoxin in Therapy of Ambulatory Patients With Congestive Heart Failure. J.A.M.A., 164:743, June 15, 1957.
- 19. Gold, Herman, and Bellet, Samuel: Acetyldigitoxin in the Treatment of Heart Failure. N. E. Jn. of Med., 256:536-540, March 21, 1957.
 - 20. Kuzma, Oliver, Thorner, M. C. and Griffith, George

C.: Acetyldigitoxin: Digitalization With a Single Orally Administered Dose. Postgraduate Med. 25:350-355, March 1959.

21. Brill, I. C., Burgner, P. R. and David, N. A.: Acetyl-Digitoxin (Acylanid): Rapid Digitalization and Maintenance by Oral Administration. Annals of Int. Med., 44:707-716, April 1956.

22. Crouch, R. B., Heitmancik, M. R. and Herrmann, G. R.: A Clinical Evaluation of Acetyl-Digitoxin. Am. Heart J. 51:609, April 1956.

23. Goldfarb, M., Thorner, M. C. and Griffith, George C.: Clinical Experience With Acetyl-Digitoxin: Preliminary Report. Am. Jn. Med. Sc. 231:186, Feb. 1956. 24. Zilli, A., and Luisada, A. A.: Effects of Acetyl-Digitoxin in Ambulatory Patients With Congestive Failure. Exper. Med. and Surg. 13:118, 1955.

25. Jennings, P. B., Makous, N. and Vanderveer, J. B.: Reversion of Atrial Fibrillation to Sinus Rhythm With Digitalis Therapy. Am., Jn. Med. Sci. 235:702, June 1958.

26. Sanazaro, Paul J.: Use of Deslanoside in Acute Myocardial Infarction and Cardiac Emergencies: A Probative Agent for Assessing Digitalis Saturation and for Intramuscular Digitalization. Am. Pract. and Dig. of Treatment, 8:1933-1941, Dec. 1957.

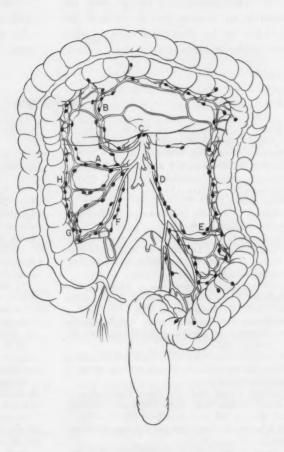
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CLINI-CLIPPING

Lymphatic Drainage of Colon

- A. Right Colic Nodes
- B. Middle Colic Nodes
- C. Superior Mesenteric Nodes
- D. Inferior Mesenteric Nodes
- E. Left Colic Nodes
- F. Ileocolic Nodes
- G.H. Paracolic Nodes



A Recent Advance in Cholesterol Metabolism Control

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A review of current concepts as to the relationship of cholesterol to coronary atherosclerosis is presented. The methods of lowering serum cholesterol are discussed and the various drugs used are briefly described and their limitations stressed. An enzyme blocking agent which inhibits synthesis of cholesterol in the liver is also reviewed.

therosclerosis is best described as a multifaceted disease process in which heredity, diet, morphologic anatomy, and chemical anatomy of the blood vessel wall, blood pressure, lipid content of the blood, and sex all play a part. Although the relationship between serum cholesterol and the pathogenesis of atherosclerosis has not been definitely established, it has been widely investigated; and the bulk of the evidence favors an etiologic association between hypercholesterolemia and atherosclerosis. Both atherosclerosis and hypercholesterolemia may be the end products of an altered metabolic state. Because of this possibility, many therapeutic attempts have been made to lower serum cholesterol.

Thirty-three percent of the cholesterol is in the free state and the remainder is esterified. Red cells, nerve and brain contain only free cholesterol, while other tissues contain both free and esters. The total lipid partition is broken down into: 1) cholesterol (37%); 2) phospholipids; 3) triglycerides; 4) free fatty acid.

Cholesterol metabolism is divided into an exogeneous and endogenous metabolic cycle. The exogenous metabolism is well understood and has been described in various articles in the literature. The endogenous biosynthesis of cholesterol is not so well defined but thought to proceed in the following steps. Acetyl-CoA condenses to form acetoacetyl CoA which with the addition of one more acetyl CoA and a decarboxylation produces dimethylacrylate which is a 5 carbon unit. There follows a condensation of six of these units through various steps

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to form the long chain hydrocarbon squalene. The squalene cyclizes and forms cholesterol by losing three methyl groups. The study of cholesterol biosynthesis is facilitated by the use of radioactive C 14 acetate.³

Recently Ahrens and others made it a well-documented fact that fat and not cholesterol in the diet was responsible for high levels of serum cholesterol.⁴ The liver maintains a balance between exogenous and endogenous cholesterol so that the serum concentration is held at a constant level by this brake mechanism involved in liver synthesis.

Since atherosclerosis is a metabolic disease, altered serum cholesterol, lipids and lipoprotein play a critical but not exclusive role. Therefore, elevated levels of the serum cholesterol, lipid and lipoproteins are cardinal signs of this metabolic abnormality. The importance of these factors clinically, is that a sudden elevation of these serum constituents, in particular the serum cholesterol, may be associated with incipient coronary artery disease. The correlation of a high serum cholesterol with atherosclerosis is statistically well documented.^{5, 6} However, it must be remembered that this is not uniformly true for the individual.

Pathologic data further supports the cholesterol-atherosclerosis relationship. The chemical determination of the lipids involved in the atherosclerotic plaques reveals that the origin of the lipids is chiefly from the plasma. Fifty percent or more of the plaque is in the form of cholesterol particularly in the esterfied form.

Further evidence of the association of hypercholesterolemia and atherosclerosis is derived from the fact that certain non-related disease processes with characteristic high serum cholesterol levels show a much higher incidence of atherosclerosis. Such disease processes are diabetes, nephrosis, hypothyroidism and essential hyperlipemia.⁸

Other significant studies of importance are 1) racial studies, where low cholesterol levels due to dietary restriction are associated with low incidence of coronary artery disease;^{9, 10, 11} 2) stress increases serum cholesterol levels and

is associated with higher incidence of coronary artery disease;¹² 3) studies in association with sex in which menstruating females have low levels of cholesterol and an associated low incidence of atherosclerosis.¹³ The association of the increased incidence of hypercholesterolemia and coronary artery disease in postmenopausal women is a well-established fact. The prime factor involved is the inhibitory effect of estrogens on serum cholesterol levels and 4) animal studies in which high fat and cholesterol diets are associated with a higher incidence of atherosclerosis documented at post mortem.^{5, 14}

With such impressive studies as an incentive, greater efforts have been initiated to diminish the serum cholesterol levels. Three basic methods have been tried. They are: 1) an attempt to diminish cholesterol absorption from the gastrointestinal tract; 2) to increase the metabolic process and biliary excretion of cholesterol and 3) to inhibit the endogenous liver synthesis of cholesterol.

Unsaturated fatty acids such as corn oil which contains a high percentage of linoleic acid and linolenic acid prevents absorption of cholesterol from the gastrointestinal tract.15, 16 Estrogen and thyroxine increase excretion and catabolism of cholesterol. Nicotinic acid in large doses (1 gm. to 3 gms./day) will lower blood cholesterol by a mechanism not yet understood. Each of the above have distinct disadvantages in their use. Large quantities of corn oil are required to lower blood cholesterol significantly to the point where it is not palatable or if, in concentrated forms, too expensive. Estrogen will produce loss of secondary sexual characteristics and loss of libido in males. Thyroxine will usually produce tachycardias. In the dose range necessary for effective results by nicotinic acid, the side effects of flushing and GI upset are usually unbearable. It, therefore, seemed more plaus-

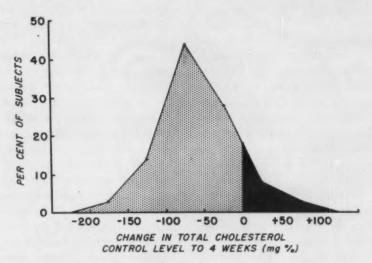
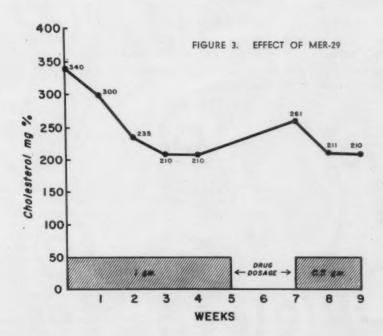


FIGURE 2. Distribution of changes from control level to four weeks post-treatment (all dosage levels combined).



ible to find a substance that would inhibit cholesterol synthesis in the liver, and yet be palatable, non-toxic and within the economic range of the average patient.

Triparanol (M. E. R.-29)® (Figure 1) is an agent which inhibits the conversion desmasteral¹⁷ to cholesterol in the liver. This was demonstrated by Blohm in rats by the use of radioactive C-14 sodium acetate (the natural precursor of endogenously synthesized cholesterol).¹⁸ Following the use of Triparanol, the rats' liver showed eighty-five percent inhibition of cholesterol synthesis as compared to the control group.¹⁹

In our clinical study of Triparanol, a daily single dose of 250 mg. was sufficient to lower the blood cholesterol significantly in eighty-three percent of the patients (thirty-three out of thirty-six) with baseline levels of 250 MGMS.% and higher. The maximum fall in cholesterol usually occurred by the fourth week and was maintained for over ten months (duration of the study to date). Figure 2 shows distribution of changes from control level over the four-week period indicating that forty-five of the subjects had an actual average fall of 55 MGMS.% in blood cholesterol. This fall in cholesterol was maintained as long as the patients were continued on the drug. In two

instances, on discontinuing the drug, the serum cholesterol rose to pre-treatment levels. Upon reinstitution of therapy, a significant lowering of the serum cholesterol was again seen (Figure 3).

Toxic studies revealed no hepatic or hematologic effects. In the 250 MGMS. dosage range there was no nausea or vomiting. In the higher dosage levels, nausea and vomiting was seen in thirteen percent (five) of the patients but on decreasing the dosage the symptoms subsided. In no instance was it necessary to discontinue the drug. One patient developed an erythematous dermatitis which cleared while continuing the drug. False positive urine albumin tests may be obtained as a result of some metabolic breakdown product of the drug which is excreted in the urine. This occurred in seven percent (three patients) of the patients but they had normal BUN's and other renal function studies; in addition they had chronic prostatitis which probably accounted for the albuminuria.

Of course, a long term study (at least five years) is necessary and underway in order to determine what effects lowering of serum cholesterol will have on the development, course, and prognosis of coronary atherosclerosis.

Bibliography

- 1. Hillman, L., Rosenfeld, R. S., Eidinoff, M. L., Kukushima, D. K., and Gallagher, T. F.: Isotopic Studies of Plasma Cholesterol of Endogenous and Exogenous Origin. J. Clin. Invest. 34 (1):48-60, 1955.
- 2. Cholesterol Biosynthesis. Nutritional Revue. 15:282, 1957.
- 3. Hillman, L., Rosenfeld, R. S., Gallagher, T. F.: Cholesterol Synthesis from 2-C-14 acetate in man. J. of Clin. Invest., 22:715-720, 1943.
- 4. Ahrens, E. H.: Nutritional Factors and Serum Lipid Levels. Am. J. of Med. 23:928-952, 1957.
- Coronary Artery Disease. Lancet: 625-627, 22, 1958.
 Keys, A.: Diet and Coronary Disease. Lancet, 54:2:
- 7. Hartroff, W. S., and Thomas, W. A.: Pathological lesions related to disturbance of fat and cholesterol metabolism in man. J.A.M.A., 164, 1957.

596

- 8. Katz, L. N., and Stamler, J.: Experimental Atherosclerosis. Charles C. Thomas, 1953.
- Keys, A.: Coronary Heart Disease and the Mode of Life. Modern Concepts of Cardiovascular Disease. 25:317, 1956.
- 10. Larsen. N. P.: Diet and Atherosclerosis. A.M.A. Arch. of Int. Med. 100:436, 1957.
- Keys, A.: Diet and Epidemiology of Coronary Heart Disease. J.A.M.A. 164:1957.
- 12. Friedman, M., Rosenman, R. H., and Carroll, V.: Changes in Serum Cholesterol and Blood Clotting Time in Men Subject to Cyclic Variation of Occupational Stress. Cir. 17:852-861, 1958.
- 13. Katz. L., Stamler, J., and Peck, R.: The role of Hormones in Atherosclerosis. Symposium on Atherosclerosis, National Academy of Sciences, National Research Council, Washington, D. C., 1954. N.A.S.-N.R.C.

MEDICAL TIMES

Publication, 338:236, 1954.

14. Page, I. H.: Atherosclerosis. Circulation, 10:1, 1954. 15. Keys, A., Anderson, J. T., and Grande, F.: "Essential" fatty acids, degree of unsaturation and effect of corn (maize) in serum Lipid levels in man. Lancet. 1:66, 1957.

16. Anderson, J. T., Keys, A., and Grande, F.: The effects of different food fats on serum cholesterol concentration in man. J. of Nutrition, 62:421, 1957.

17. Steinberg, D., Avican, J.: Personal communications. 18. MacKenzie, R. D., and Blohm, T. R.: Effects of

M.E.R.-29 on cholesterol biosynthesis. Federation Proceeding, 18:417, 1959.

19. Blohm, T. R., Kariva, T., Loughlin, M. E., Polopoli, F. P.: Reduction of blood and tissue cholesterol by M.E.R.-29, a cholestrol synthesis inhibitor. Federation Proceedings, 18:369, 1959.

230 North Broad Street



CLINI-CLIPPING

INTERSTITIAL TYPE OF HERNIA Proparietal or extraparietal (superficial) between superficial fascia and ext. oblique muscle.



Griseofulvin in the Management

he therapeutic approach to superficial fungus infections of the skin, scalp, nails and possibly even to the deeper fungal infections has undergone a radical change with the advent of griseofulvin. In as much as the fungi live in the very superficial layers or outer layers of the skin, hair, and nails, the purpose of treatment prior to the use of griseofulvin was to use keratolytic preparations such as Whitfield's ointment, Castellani's paint, salicylic acid tinctures, and peeling procedures which would in essence dissolve the outer horny layer and so rid the skin or its appendages of infective organisms. Fungicidal or fungistatic preparations were of benefit. However, because of the lack of penetration into the horny layer or stratum corneum, they were not sufficiently effective to eradicate the infective process. For this reason fungal infections of the nails, where the infection is beneath the nail plate and inaccessable to topically applied preparations, were almost always treatment failures. Tinea capitis in children often required months of treatment for the same reason, and frequently x-ray treatment was necessary to produce an epilation of infected hairs and so remove the infection. Even the apparently simple fungal infections of the groin, trunk, and toes were often recalcitrant to treatment, and frequently the topically applied preparation did more damage and produced more irritation than the original fungal infection. With the advent of griseofulvin, the initial enthusiasm

attendant upon the announcement of an effective antibiotic for fungus infections which can be given systemically has been more than justified.

History

Griseofulvin was first isolated from Penicillium griseofulvin by Oxford, Raistrick, and Simonet, in 1939. Several investigators 2, 3, 4 then demonstrated that the antibiotic was effective against mycotic diseases of plants and vegetables. Gentles found griseofulvin effective by oral administration against ringworm infected guinea pigs. Williams, Marten, and Sarkany were the first to report on the use of griseofulvin in man, observing good initial results in ten patients. Blank and Roth's report on a favorable response in thirty-one patients was the impetus for the wave of investigative work now taking place in the United States.

Clinical Application

The response to treatment with griseofulvin is slow and depending upon the type of infection present, administration of the drug may be required for several months. For this reason, and because not all fungi respond to this

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of Fungus Infections

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medication, an accurate diagnosis and the identification of the type of organism causing the infection is indicated. A scraping taken from the lesion and put on a glass slide is easily cultured, and the type of infections and the type of organism readily identified. Psoriasis of the finger nails can produce the identical clinical picture as that of onychomycosis. In as much as treatment of onychomycosis of the finger nail may require three to four months of continuous treatment with griseofulvin, it is obviously important to be sure the patient has a true ringworm of the nails before instituting treatment. Candida albicans which causes moniliasis of the gastrointestinal tract, skin, nails, vulva, and vagina is not responsive to griseofulvin. Tinea versicolor caused by Malassez furfur also does not respond to treatment.

TINEA CAPITIS: All cases of tinea capitis, regardless of the causative organism, are responsive to treatment; M. audouini and M. lanosum cause the majority of cases of tinea capitis in this country. They both produce fluorescence of infected hairs under the Wood's light. In the western part of the United States, T. tonsurans is becoming more prevelant and here fluorescence does not occur. The usual duration of treatment is five to eight weeks of continuous therapy, and the recommended dose is 10 mgs. per pound or 250 mg. of griseofulvin four times a day in a child weighing one hundred pounds. The dose should be

adjusted to two or three tablets daily in a smaller child. In as much as recurrences have occurred and the organism has been demonstrated to be present after apparent clinical cure, so continued treatment to the point of negative culture plus the use of topical antifungal preparations are indicated to prevent recurrences.

ONYCHOMYCOSIS: Ringworm of the finger nails and toenails should be considered as separate entities. Onychomycosis of the finger nails in an adult require 250 mg. of griseofulvin four times a day for six weeks before any response is apparent. The effect of griseofulvin is fungistatic and as the nail grows out, the infected area moves distally until cure is achieved. Toenails are much slower growing and ten to twelve months of continuous therapy may be required. Some toenails have not responded after even this period of treatment. It is questionable whether such extended treatment is justified here and each case should be evaluated individually.

TINEA CRURIS AND TINEA CORPORIS: The response of ringworm infections of the groin and body is generally gratifying. Between the second and third week of treatment the average lesion starts to clear and in another two or three weeks the patient is generally free from infection. Even the larger plaque-like circinate eruptions of the trunk and buttocks caused by T. rubrum respond well. In as much as demonstrable fungi have been demonstrated

on the skin after apparent clinical cure in these cases, recurrence of infection will frequently occur unless concurrent topical therapy is used.

EPIDERMOPHYTOSIS: Griseofulvin is effective in "athletes foot." While griseofulvin may be used alone, recurrences have occurred so frequently, that the combination of systemic griseofulvin and topical preparations or Castellani's paint or Whitfield's ointment or tincture are advisable.

THE DEEP MYCOTIC INFECTION: The present number of patients having deep mycotic infection that have been treated is not sufficient to evaluate which of the deep mycotic infections are responsive to treatment. Myectoma, Sporotrichosis, and deep Trichophytosis have shown a favorable response to therapy in humans. Griseofulvin was ineffective in the treatment of mice infected with histoplasmosis, blastomycosis, cyptococcosis and coccidioidomycosis.

Toxicity

The toxic effects of prolonged treatment with griseofulvin are slight and infrequent. A moderate transitory lymphocytosis appears in twenty to thirty percent of the patients treated. No significant toxic effect on the liver, hermatopoietic system or kidney has been demonstrated. Headaches, mild gastric upsets are occasionally encountered.

Resistant Strains

The development of resistant strains is a possible consideration for the future. There have been some cases already reported of proven fungal infections which have not responded to treatment. Whether we shall eventually face the same problems with an antibiotic which is effective against fungal infections which we have with other antibiotic remains to be determined.

References

- 1. Oxford, A. E., Raistrick, H., and Simonet, P.: Studies in the Biochemistry of Micro-Organisms: LX. Griseofulvin C₁₇, H₁₇, O₆, Cl. A metabolic Product of Penicillium Griseofulvin. Dierckx, Biochem. J. 33:240, 1939.
- 2. Brien, P. W.; Wright, J. M.; Stubbs, J.; and Way, A. M.: Uptake of Antibiotic Metabolites of Soil Micro-Organisms by Plants, Nature, London 167:347, 1951.
- Stubbs, J.: The Evaluation of Systemic Fungicides by Means of Alternaris, Solani on Tomato, Ann. Appl. Bot. 39:439, 1952.
- 4. Rhodes, A., Crosse, R.; McWilliam, R.; Tootill, J. P. R., and Dunn, A. T.: Small Plot Trials of Griseofulvin as a Fungicide, Ann. Applied Biol. 45:215, 1957.
- 5. Gentles, V. C.: Experimental Ringworm in Guinea Pigs: Oral Treatment with Griseofulvin. Nature, London, 182:476, 1958.
- 6, Williams, D. I.: Marten, R. H.; and Sarkany, I.: Lancet 2:1212, 1958.
- 7. Blank, H., and Roth, F. J., Jr.: The Treatment of Dermatomycoses with Orally Administered Griseofulvin, A.M.A. Arch. Dermat. 79:259, 1959.
- 8. Goldfarb, N. J. and Sulzberger, M. B.: Therapeutic Results with Special Reference to Recurrences, Reinfections, and the Healthy Carrier State, Miami Conference on Griseofulvin. Oct. 26, 1959.

125 Argyle Road



MEDIQUIZ . . .

Working alone or with your colleagues you'll find this is no snap. PAGE 85a.

Peculiar Writing Mannerisms

Some right-handed individuals utilize "lefthanded" mannerisms in writing: The writing instrument held reversed, pointing back toward writer.

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uveniles1, 2 may be observed in the school class-room, and adults in colleges, banks, and in post-office lobbies writing instrument held reversed, pointing back toward the writer. It is known that some lefthanded persons write with this reversed posture. From replies of school officials, I note that about six percent of school students have a reversed writing posture. However, from the same series of replies, I can state that a number of students who are right-handed use this reversed posture. A city school principal replies that he has two right-handed students who write with reversed posture. Another city school principal notes that among five hundred and thirty-three students there were four girls who had reversed writing posture; and among a group of boys, there was one right-handed student who used the reversed posture. There were twenty-eight students of both right- and left- handedness in this group who used the reversed writing posture. Another principal replied that among one hundred and three stu-

dents observed, there were six who were righthanded but used the reversed position. Three left-handed students wrote either way.

The present comment is published in order to bring this problem a wide audience. The ancient "Gordian Knot" may have been tied by a reversed-postured individual! In our medical and surgical work we notice that knots are tied backwards, by some persons, and that these people use instruments in the reversed position! This is a problem for study to see what can be done for these youngsters when this habit is being formed.

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^{1.} Evans, T. H., Medical Times, Vol. 86, P. 607, 1958.

^{2.} Evans, E. G. S.: A Simple Motor-Pattern Test. American Biology Teacher, Vol. 7, No. 1, P. 18, 1944.

^{3.} Evans, T. H., N. E. Jour. Med., Vol. 258, P. 199, 1958.

^{4.} Evans, T. H., N. Y. State Journ. Med., Vol. 57, No. 5, March 1, 1957.

Compulsory Health Insurance



-Fact and Fancy

A significant facet of the drive to collectivize America, one of serious consequence for all physicians, hospitals, and insurers, is the effort, now approaching its apex, to place in the hands of the Federal government the obligation to pay the health care costs of many of our older citizens.

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f the several proposals pending in the Congress to extend Social Security benefits to include certain costs of hospital, nursing home, and medical care incurred by OASI eligible recipients the best known is H. R. 4700 of the 86th Congress introduced by Representative Aime J. Forand of Rhode Island. Similar bills have been sponsored by others including presidential-aspirants John Kennedy and Hubert Humphrey. These bills differ in detail but their essential characteristics are entitlement to specified health care benefits through the Social Security system irrespective of need and a payroll tax. In this discussion, reference to the Forand Bill is intended to apply not only to H. R. 4700 but all similar proposals.

In the last few years, there has been an increasing preoccupation with the status and problems of our senior citizens. By legislative fiat, enunciated in the Social Security Act, the aged are defined to be males age 65 and over and females age 62 and over despite the well-established fact that age is a physiological rather than a chronological phenomenon. There are now about 15.5 million Americans who have achieved senior status. Because of the thrilling progress of scientific medicine and the rising living standards of our people, more and more

Americans are living into the older ages. By 1970 it is expected that there will be twenty million Americans over age sixty-five. With retirement from productive work, it is usual for the older person's cash income to decline. Coincidentally, the utilization of health care services by the older person increases to about twice the level of the younger adult. It is this concurrence of decreased income and greater utilization of health services that has led some people to believe that medical expense is the most critical problem of our aged; a problem of such proportions that only assumption of responsibility for its solution by the Federal government can provide an adequate answer. It is something more than happenstance, I believe, that among the most eager and vocal advocates of such Federal largesse are those who seek preferment for high public office or at the head of well-organized minority pressure groups. They trade on popular ignorance of the cost of extravagant social benefit programs, both in present and future taxes and in erosion of human freedoms. They cultivate or condone the fallacies that government can create wealth, that government can do it cheaper or better, that

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our country can survive, even prosper, when important elements in our population are encouraged to embrace a something-for-nothing philosophy. They pillory those who oppose their schemes as anti-social malefactors, moneychangers, and feudal reactionaries.

Proposals for Forand-type legislation are premised on three assumptions which have been asserted frequently but never proved. They are that aged people are unable to finance their own care; that aged people are unable to secure private health insurance or that such insurance is inadequate; and finally, that extension of the Social Security system into the field of health care will solve the problem. No one denies that in the normal course of the aging process, older people require more medical attention than younger people. It is also recognized that the cash income of retired persons is less than that of persons still at work. But this does not add up to widespread financial incompetence among our senior citizens. In fact there is considerable evidence that the vast majority of old people are able to meet their medical billseither by themselves out of income or accumulated resources or with the help of their families. In a survey of older people conducted in 1957 by the National Opinion Research Center, it was determined that only 9.6 percent of those interviewed said they could not pay were they to incur a medical bill of \$500. Older people assume or make provision for the costs of their health care in a variety of ways. Many of them have income from employment, social security, pensions, annuities, savings, investments, insurance, or other assets. Many aged persons receive health care through membership in a union, a religious or fraternal group or in associations of retired people. Others are entitled to care because of a present or former occupational pursuit such as seamen, members of the armed forces, members of religious orders, or as a matter of professional courtesy. Sixteen percent of the aged are presently public welfare recipients under federally aided public assistance programs and, as such, are eligible to receive medical care. Contrary to the assertion that most of our old people are in dire need of help to meet their medical expenses, many studies show that the economic status of the aged is improving markedly. The number of them entitled to pension payments, OASI benefits, profit-sharing plan participation, veterans compensation and care, increases each year. Life insurance benefits paid annually have doubled in the past decade and an increase in these payments may be expected to continue. No age group shows as favorable a liquid asset position as the aged, nor has any other age group accumulated liquid assets faster than those age sixty-five and over, seventy-four percent of whom now own liquid assets in some form or other. The median net worth of a retired worker, with his wife also entitled to OASI benefits, has increased in the short span of six years from \$5610 to \$9616, an increase of seventy-one percent. While of course there are severe hardship cases among the aged, it has not been proved that our senior citizens as a class require an elaborate social benefit scheme to permit them to pay for needed health care. In fact, the preponderance of sound evidence is to the contrary.

Health Insurance Is Available

The second assumption that advocates of Forand-type legislation adopt is that private health insurance for the aged is not available or is inadequate. Let us look at the record. The growth of private health insurance in America during the past quarter century has been nothing short of phenomenal. Private health insurers have increased their volume of coverage in force, judged by earned premiums, by thirty-two hundred percent in this period. Today one hundred and twenty-seven million Americans have some private health insurance, more than are protected by any other line of insurance. Significantly, the amount of health insurance owned by aged people is growing at a rate faster than for the population as a whole. Health insurance benefits for the aged are provided in a variety of ways. Older active workers are without exception continued in group insurance plans. The majority of new group plans provide for continuation of benefits

to retiring workers. Other group plans permit the retiring worker to convert his protection to an individual policy. Several insurers have issued group plans to associations of older people such as Golden Age Clubs. Most insurers continue into later years individual contracts issued at younger ages. More than one hundred and twenty-five insurers issue contracts to older people. Among these are contracts that do not require evidence of good health as a condition of eligibility and pay benefits for loss due to preexisting conditions after a short probationary period. Some insurers offer health insurance contracts that become paid-up at age sixty-five. Free, keen competition among more than eight hundred insurers has stimulated research and experimentation to devise and provide ever more adequate benefits and utilize more efficient methods. The insurance buyer can choose from a multitude of plans offered by insurance companies, service plans like Blue Cross-Blue Shield, and miscellaneous plans like Kaiser-Permanente or the Health Insurance Plan of New York. The benefits available to the aged under these plans are not significantly different from what is offered younger people. Insurers will provide just about whatever amounts and kinds of benefits are desired.

There is little substance to the frequently asserted criticism that health insurance is withdrawn just when most needed. Presently, seven out of ten insureds are protected under group plans whose coverage cannot be terminated as to the individual alone. Of those insured individually, thirty-one percent hold contracts that are guaranteed renewable and thirty-two percent have contracts stipulating that the insurer will not terminate coverage because of deterioration of the health of the insured after issue. Of the remaining individual contracts termination by the insurer annually averages less than three-tenths of one percent. The criticism that health insurance is expensive and that there is no protection against premium increases is not indicting. Health insurance charges are directly related to the costs of health care and are policed effectively by competition. Were health care financing to be the responsibility of government, the costs would certainly increase if for no other reason than because people universally seek any benefit they are taxed to provide whether they need it or not.

Voluntary Plans Growing

In 1957 the National Opinion Research Center estimated that thirty-nine percent of all noninstitutionalized persons age sixty-five and over had some form of private health insurance. The same year the U.S. Department of Health, Education and Welfare estimated that fortythree percent of OASI beneficiaries were so insured. However, these estimates understate the role of private health insurance because, among the aged, there are a substantial number who do not need or want such insurance. Among them are public welfare recipients, veterans, members of the armed forces, the affluent, and others who do not wish to insure. When these people are excluded from the insurable potential, it is estimated that fifty-one percent of the aged who needed and wanted health insurance had it in 1957. The percentage of future aged who will be insured will increase steadily. Today seventy-five percent of all Americans under age sixty-five have health insurance protection. As they move into retirement they will see to it that their protection is continued under one of the several arrangements now available. Barring interference by government, present trends indicate that sixtyfive percent of the aged who need and want health insurance will have it by the end of this year and eighty percent by the end of 1965.

The preponderance of evidence establishes that private health insurers are meeting the needs of the aged as well as other segments of the population. Private insurance, though not perfect, is developing rapidly and is the most flexible and economic means of providing for the changing needs of most older people.

The assumption that enactment of Forand type legislation will solve the health care problems of the senior citizens is false. In point of fact, these proposals fail completely to alleviate the only real problem—that of the present indigent aged. There are over four million of

the aged who are not covered by or eligible to receive OASI benefits, this being generally one-third of all aged persons. Part of this group are the aged people who have the greatest difficulty in paying their health care costs. Yet Forand-type proposals would do nothing to ease their burden. These bills fail to define or reach those who have the greatest need.

Not only are the premises on which this type of legislation is urged without foundation but it is obvious that enactment of a Forand-type bill would entail a whole series of highly undesirable if not downright disasterous consequences for our country. What are some of the implications of a Forand-type law?

Fiscal Foolishness

It is certain that such a law would impose on our already overtaxed citizenry another heavy and unnecessary tax. Proponents of bigger and better social hand-outs tend to minimize the cost of their schemes. Thus, the Forand, Kennedy, Humphrey proposals call for an increase in the Social Security tax of only 1/4 percent of the first \$4800 of covered annual income, payable by both employer and employee, or 3/8 percent payable by the selfemployed. This tax would support their predicted annual cost of the scheme of \$1,000,-000,000 or less. However, competent insurance actuaries, on whose objectivity reliance can be placed, estimate that the cost of H. R. 4700 in 1960 would range from \$2,074,000,000 to \$2,387,000,000 while by 1980 these costs would range from \$5,981,000,000 to \$7,660,-000,000. Expressed in terms of a level tax, these costs would range from 2.32 percent to 2.97 percent of taxable payroll, considerably more than the tax suggested by the advocates of the measure. Today the Social Security system is collecting six percent of covered income to defray present benefits. This tax is scheduled to go to nine percent by 1969. Many people are already paying more in Social Security taxes than in income taxes. The euphemism of the welfare-statists of referring to the Social Security tax as a "contribution" or a "premium" is wry humor, indeed, when one contemplates the size of the levy on the worker's earnings. Professor C. Northcote Parkinson in his recent book, "The Law and the Profits," has observed that like certain poisons, taxes can be taken only in small doses. When the peace-time national tax passes ten percent, people begin to take evasive action. At about twenty-five percent, inflation debases the currency. Over thirty-five percent, taxes are alms for oblivion; the nation is carting itself to history's junkpile.

Another implication of Forand-type legislation is that it would impair if not destroy both the present Social Security system and private health insurance. The service benefits contemplated by these proposals are inconsistent with the original purpose of OASI. Service benefits can only be provided through local arrangements and individual authorization. This is a far cry from the present Social Security program that deals with objective and easily established facts such as age, family relationship, and wage history and provides definite cash benefits that do not require negotiation. The Social Security structure would be jeopardized by imposing on it responsibilities for which it is inherently unsuited. It is not unlikely that the additional cost of health benefits would undermine the long term willingness of taxpayers to pay for Social Security. If this generation keeps piling benefit upon benefit and adding tax upon tax, who can say when our children on whose backs the major costs will fall, will repudiate the schemes by which we have voted ourselves such largesse?

Private health insurance, a substantial taxpayer and support of government, might well be liquidated were Forand-type legislation to become law. It is not possible to compete against government. Nor is coexistence in insurance of health care costs a possibility. To the extent that government enters the field, it preempts it.

Seed of Socialized Medicine

Such legislation would effectively destroy the private practice of medicine and the voluntary general hospital in America. Advocates of these measures always disavow any intention of disturbing the physician-patient relationship or in any way affecting the professional aspects of health care. But let us recall that the United States Supreme Court has enunciated the dictum that "it is scarcely lack of due process for government to regulate that which it subsidizes." The inevitability of government regulation of health care processes if they are paid for by government is obvious and is a necessary corollary to the disbursement of public monies. He who pays the piper calls the tune. Because our doctors and hospital people know that socialization of their professions with resultant adulteration in the quality of health care would follow enactment of these measures, they are overwhelmingly opposed to them.

The Forand Bill would lead inexorably to a complete cradle to grave compulsory national health plan. We do not need to rely on the unvarying experience of other countries to prove this point. We have but to look at the history of social benefit schemes in America to understand that their inherent characteristic is to expand, burgeon and metastasize. It is a biennial election year contest to see who can add the most in benefits and coverage to the social security setup. In just a quarter century this country has seen the Social Security Act grow from a program that provided retirement benefits to wage earners to a program that provides retirement benefits to both employed and selfemployed, and their dependents, survivorship benefits to dependents of the employed and selfemployed, and benefits to the disabled employed and self-employed and their dependents. The tax to support this program began at one percent each for employer and employee of the first \$3000 of covered payroll. It has grown to three percent each of the first \$4800 of covered payroll and is scheduled to go to four and one-half percent each by 1969. In the light of this history and the inevitable pressures for continual extension of benefits until they are comprehensive, once the principle of Federal provision of health care benefits is established, what can be expected if Congress passes a Forand-type bill? Obviously, continual demands would be made on Congress for full coverage benefits for the aged and then for everyone in the population. Social benefits are never contained or restricted short of totality once the carcinogen is planted in the body politic. That the proponents of these measures know that this would be the ultimate result explains their willingness to modify and reduce present proposals just so long as the seed is sowed. For instance, Walter Reuther of the UAW-CIO when testifying before the Ways and Means Committee of the House of Representatives last July stated: "It is no secret that the UAW is officially on record as backing a program of national health insurance. But even if we were against national health insurance we would favor the Forand bill." Once initiated on no matter how restricted a basis it would be but a short while until compulsory health insurance and socialized medicine for some would become government health care for all.

Drain on the Economy

It cannot be doubted that these proposals will intensify and aggravate our country's already serious economic and fiscal problems. Social Security taxes are a fixed, continuing and inflexible part of the cost of doing business for nearly every enterprise in our country. As the costs of doing business increase without commensurate increase in productivity inflationary pressures mount. By saddling our economy with higher production costs we further impair our ability to compete successfully in the world's markets. Our government struggles today to manage a monstrous debt. It consists not only of the well-known obligations of the United States Treasury amounting to \$290,-000,000,000 but includes \$350,000,000,000 of future obligations for past services by civilian government employees and military veterans, \$340,000,000,000 of unfunded liabilities of the Social Security system, \$35,000,000,000 of highway commitments, \$49,000,000,000 of defense commitments, \$8,000,000,000 for civil works, \$6,000,000,000 for public housing and \$62,000,000,000 owned by state and local governments. This all comes to a staggering total of \$1,141,000,000,000 which is the present mortgage on America's future fiscal capacity. Does it make sense in the interest of the present needy aged or any other American to add further to this unconscionable load of debt? When government siphons off too large a share of the nation's income in taxes the individual's economic incentives are dampened or stifled, rates of saving decline, and inflationary forces are intensified. Debasement of the currency through inflation is a much more dire threat to the welfare of us all, the young and the aged, than are uncertain health care costs. Though lacking in political glamour, measures to assure price and wage stability would contribute much more to the health, happiness and security of our old folks than any legislation to expand the Social Security structure.

Facilities Inadequate

Were these proposals to be enacted, government might very well be promising a benefit that it could not deliver. Our hospitals and our doctors are strained to the limit today to meet current demands for care from our rapidly growing population. Were social health insurance provided for the aged, our hospitals would be swamped and our doctors overwhelmed by the increased utilization that would result. Today in England, after a dozen years of national health insurance, the patient with a chronic appendicitis or similar malady will wait on the average two years before he can be admitted to a hospital for surgery. Our good neighbor, Canada, that recently embraced a national hospital insurance program is faced with the necessity of spending \$3,000,000,000 for additional hospital facilities to accommodate the flood of patients clamoring for a benefit for which they are paying but may not need.

A Better Way

Those who are holding the line against the imposition of Forand-type legislation on the American people are fighting the fight to preserve an America in which the individual person now and in the future may enjoy opportunity as well as a degree of security. To the extent that a problem of financing health care costs exists among the aged or any other group,

it should be met forthrightly, as it has been in the past, through assistance, either voluntary or public. Assistance funds locally administered and disbursed on the basis of known need provide the most efficient and economic means of helping that small part of our people who cannot fend for themselves. America can and must attend to their needs but in the process we need not and should not further infect our nation with the socialist virus. There are many practical approaches to supplementing existing voluntary and public assistance funds. The machinery at both federal and state levels is already established to administer federal grants to the states to help defray medical expenses of the needy. Procedures for determination of need, provision of care, and payment for care are now in existence. Additional assistance appropriations to the extent required would necessitate no new recruits to the ranks of civil servants. Since federal assistance funds are appropriated from general revenues they would be subjected automatically to annual review by the Administration and the Congress as a part of the Federal budget. Revenues derived from a payroll tax, on the other hand, tend to accumulate, year after year, without effective review by the Congress since a payroll tax, once enacted tends to be perpetual. The financing of health care of the aged will be even less of a problem in the future than it is now as nearly all of the future aged will have private health insurance protection.

It would be foolish in the extreme to graft cumbersome compulsory health insurance benefits on to the Social Security structure to relieve a transitory problem of a small part of the population.

The American system of rendering health care and paying for health care service has the vitality, flexibility and efficacy necessary to serve all of the American people well. It can only be vitiated by government interference or preemption. Those who believe in the American system are challenged today, as never before, to defend it against the unremitting pressures of those who would collectivize our country.

This address was presented at the Governor's Conference on Aging, December 15, 1959, by Dr. John P. Lynch, Chairman of the Geriatrics Committee, Richmond Academy of Medicine.

AGING IN VIRGINIA

JOHN P. LYNCH, M.D., F.A.C.P. Richmond, Virginia

appreciate being able to discuss before you a doctor's view of the problems of aging in the State of Virginia. I wish to emphasize that a doctor is a citizen as well as a medical professional and it is from this dual point of view that I wish to speak.

We are living in an era which makes man feel that he can and should solve all the problems not only on earth but now he has taken to space. Through his government he expects to solve the problems of poverty, crime and old age, and in so doing provide cradle to the grave security for all citizens of this favored land, even at the cost of his most precious possession — his freedom as an individual. Because he has eaten of the heady apple of atomic energy, he is emboldened to prowl through the cosmic Eden as innocently as Little Red Riding Hood and as boldly as Don Ouixote and, I am afraid, with as disastrous results unless he not too belatedly recalls that he is mortal and not on the Almighty's Board of Directors. So far be it from me or any other mortal to offer any pat solution for problems of aging in Richmond much less for the State of Virginia. Let me hasten to say that I would not advocate that we calmly fold our hands and leave Providence to solve our difficult problems, but I do feel we ought not to panic and sell our birthright of freedom for the mess of pottage of expediency, or our individual character and motivation for a full life, for the glowing promises of a welfare state.

Virginia historically has cared for its less fortunate people. From Richard H. Kirkwood's "Fit Surroundings," which by the way is a most readable pamphlet on the history of care of the aged and poor in Virginia, we find our first efforts patterned after the Elizabethan Poor Laws of 1601. In 1611, the London Company gave the Governor of Virginia authority to provide for the relief of the destitute. In 1755, an act for employing and better maintaining the poor was passed. The law authorized the vestry of each parish to erect, purchase, or hire buildings to house the people dependent on church wards for relief. In 1785, the care of the poor was removed from the vestry and made a responsibility of the state by setting up almshouses under the direction of a superintendent of the poor who was responsible to the county board of supervisors. In 1910 there were 109 almhouses in Virginia and in 1947 the number was reduced to 22 - thirteen in counties and nine in cities.

In 1769 the Eastern State Hospital was established, the first state hospital for the insane in America and the first for the Negro insane. The first school for the deaf and blind in America was established in Staunton soon after 1887.

A Medical Philosophy

In 1918 the first district home legislation was passed and the first home was established at Manassas in 1927, in Waynesboro and Dublin in 1928, and in Chatham in 1929. The district home makes it possible for cooperating counties to pool their resources for a more economical solution for the indigent aged. The most exciting addition to these in recent years is the Patrick Henry Home which opened in 1949 and now serves 17 counties and 6 cities. This chronic disease facility has a capacity of about 300 and serves the Tidewater section in a most admirable way.

In addition to these, there are proprietary nursing homes, philanthropic, fraternal and church homes. These have come about gradually as the need manifested itself and not by the modern technique of projecting a need long before it is realized. I am not attempting to be critical of long-range planning but to warn against methods of the Federal Government to spend money unwisely, and, I might say, against the operation of giant health funds, in their profligate spending in the health research field. They scare people into giving and then the drug industry offers tranquilizers to restore tranquility.

Let me give you some examples in point. There are over seventy-five so-called public subscription health funds of national scope which in 1958 garnered \$175,000,000 from the generous American public. The American Heart Association raised an estimated \$22,-345,700. The Federal Government appro-

priated an additional \$45,613,000 for the National Heart Institute, a total then of \$67,-958,700 for heart alone. The American Cancer Society raised an estimated \$33,950,000 and the Federal Government appropriated \$75,268,000, a total of \$109,218,000 for cancer alone. The Arthritis Foundation and the National Society for Crippled Children and Adults raised together \$20,293,400, while the Federal Government appropriated \$31,215,000 for arthritis and metabolic disease or a total of \$51,508,400. Thus for three diseases, heart, cancer and arthritis with metabolic disease, the colossal total of \$228,685,100 was raised by subscription and government appropriation. Is this money being spent wisely or is it being dissipated by many uncoordinated pet research programs? I wonder! Some day the American public may justly ask us, their physicians, "What have you accomplished with our money?"

Recently our group in Richmond was told \$250,000 annually for a period of five to ten years would be appropriated for geriatric research. When we asked how all this came about without our even asking for it, we were told that Congress was going to appropriate the money and the agency which approached us was instructed to find out how best to spend their money. How long will it be before such medically-minded politicians will be writing our prescriptions for us? How long before the physicians of this great country will arise and assert our rightful prerogatives as captains of

the health team and not its minions?

No great medical discovery has ever been made by raising a huge sum of money by public or private subscriptions of any government. Most medical discoveries have been made by serendipity, that is accidentally or in place of some other fact by some quite unobtrusive worker. As recently as 1929, the discoverer of penicillin, Sir Alexander Fleming, noticed almost accidentally that bacteria would not grow near a mold on a culture plate. Harvey Jenner, Lister, Pasteur were not financed by giant funds using Madison Avenue advertising techniques.

This is an era of panic. Suddenly, we must conquer space, must find the cure of cancer, high blood pressure, arteriosclerosis. Because we solved one of the mysteries of atomic power and made a destructive bomb by gambling a billion or two dollars, so we in our exuberance and youthfulness, believe we can crack any scientific problem by raising money and putting scientists to work. This might work for destructive science but not for the art of medicine. I am Presbyterian enough to know that no matter how hard we beat our heads against our play-pen of this world, the good Lord is just not going to permit us to find out things or even make medical discoveries until He is good and ready for us to do so. Actually He must smile as He contemplates how long we have been taking to comprehend the simple elements of our environment.

The conquering of infectious diseases, public health measures, pediatrics, have all added to our life span some twenty years since 1900. Although old age and chronic disease are not synonymous, research in the aging process has disclosed much that is helpful in the attack on chronic disease and vice versa.

I like to think of life's training course as divided into the four phases commonly employed in the training of a soldier. First is enlistment which might be compared to conception. Here forces beyond the control of the individual to be born suddenly, and without his consent or knowledge, bring him into the army of the living. Secondly, comes boot training which, in life, is the period of infancy and

childhood. Here, the individual is processed both physically and mentally for further training. It is in this field of life's preparation that the public health officer and the pediatrician have made an outstanding contribution to lengthening the life span. The child is given inoculations for diphtheria, whooping cough, tetanus, typhoid, poliomyelitis, and he can be protected from many other infectious diseases by proper sanitation, protection of milk supply, water sources and food supplies. To public health physicians and other workers we owe these constant silent safeguards. To the public this role may not seem particularly glamorous but without these safeguards many of us would not be alive today to worry about longevity or chronic disease.

The third phase of a soldier's training is more advanced. He is placed in battle training with live ammunition whizzing over his head. This I like to think of in life as the great infectious disease barrier. In 1900 the leading causes of death in the United States were tuberculosis, pneumonia, diarrhea and enteritis, and heart disease. Today heart disease, cancer, accidents and violence, and cerebral hemorrhage make up the four greatest causes of death. We have virtually eliminated the infectious disease barrier in our own life's course of training. We have learned how to protect ourselves from their live bullets. Thus the most of our life's soldiers emerge from this barrier for the most part unscathed. It is true that this barrier of infectious disease still kills and we must ever be alert to new type of ammunition used against us on this course. I refer to the most recently dangerous one, that is the staphylococcus. With few exceptions such as rheumatic fever and syphilis no drastic long-term injury results from this barrier.

The fourth phase of our life's training course is the one that we are particularly interested in today. This I choose to call the chronic disease barrier. This is the soldier's real battle experience. This course is tricky because it not only kills but worst of all maims without killing and may cause the poor afflicted soldier to wallow in the mire of physical and mental

inadequacy for the rest of his existence. He may not only suffer himself but his incapacity may bring grief and sorrow to all his family, and expense to the society in which he was enlisted in the first place. This is the barrier which confronts us today. Will we be as successful in overcoming this barrier as we were in infectious disease barrier? I think we may, at least in a partial degree, but I am sure you will agree with me that the technique must be entirely different. We must learn more about the physiology of normal tissue metabolism, about the biology of senescence, about attitudes instead of dollars.

George Washington's philosophy might be epigramatically stated as "Let us join together and build a great nation;" Abraham Lincoln's as "Fighting among ourselves can never achieve true greatness;" Teddy Roosevelt's was "Let us get up and go after it." We were going up to this point. But from then on we started down the socialized way. Franklin Roosevelt's and the New Deal philosophy was "Sit down and I will bring it to you" and now the current philosophy of the so called liberal wing of both parties is "Lie down and we will give it to you by vein if necessary, even if you don't want it, or need it, because we think it is good for you." USA should mean the United States of Americans but these initials now come closer to USSR the United States of Security Recipients. We need no more than one Mother Russia in the world nor do we need Paternalistic Uncle Sam. The initials of these words in medical parlance means corruption. This is what, for example, the Forand Bill would mean to our society. In medicine the solicitation of patients is unethical and yet our government is on the point of soliciting more and more old dependent and sick at the cost of freedom, at the cost of loss of initiative. Don't forget that any government that is big enough to give you everything you want is big enough to take everything you've got.

We don't splint any part of the human body unless it is broken, because the disuse thus created will cause atrophy and eventually complete lack of function. Please let us not so undergird our aged that they will no longer have to help themselves. William Ellery Channing once stated, "The office of government is not to confer happiness but to give men opportunity to work out happiness for themselves."

The Forand bill mentioned above provides for free surgical and hospital and nursing home care for all recipients over 65 years of age of social security benefits. This is socialized medicine, once soundly defeated at the front door of congress trying to slip unnoticed through the back door. It would inevitably lead from covering some 16,500,000 current social security recipients to other groups and eventually the whole population would be gobbled up by the spreading net of government control. We physicians oppose this vigorously not because we are selfish and do not wish to help our senior citizens but because we believe there are better and less freedom-stifling methods to accomplish the same end. I am pleased that even the Department of Health, Welfare and Education has publicly voiced opposition to this bill.

Well now Doctor, you may well say, you have certainly told us what you are against; now what are you for?

In the first place, we should begin to train our youth early to prepare for their old age not only economically but more important philosophically.

They should be taught to understand that in age they will become more and more like they always were but perhaps at an accelerated pace. This can be accomplished at the high school, or more perhaps, at the college level.

We should also educate our senior citizens for latter years and rather condition them not to retire but to decelerate, and to keep interested and working if possible so long as health permits. Any government subsidy only stultifies their motivation to do for themselves. The law providing benefits for complete and total disability under the Social Security Act has already produced an erosion of individual initiative. The lower the government support, the more the aged will do for themselves that which makes life worth more living.

The family has a responsibility to maintain a

suitable environment, respecting the senior citizen as a person and assuring him of the value of his experienced judgment.

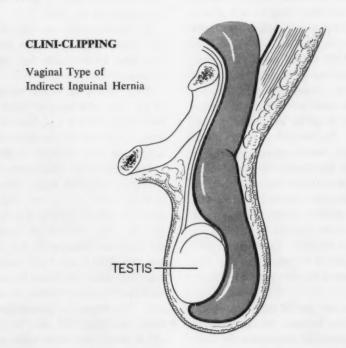
The community needs to meet needs that the individual cannot meet with his own resources or those of his family. By this I mean the encouragement of industry in abandoning artificial and unrealistic means of retirement at any compulsory age limit. It should provide adequate recreational facilities, employment, and educational opportunities. It should encourage the senior citizen to take active part in working out his own problems. It should encourage private interests to undertake building of adequate homes for the special needs of the aged. It should foster intelligent medical research to make living after sixty-five more meaningful. It should stimulate organized re-

ligion to awaken to its responsibilities. It should provide for health facilities for the underprivileged aged just as it now does for all ages.

Many of these efforts cost money but the solution is not monetary or subsidy but rather imagination, cooperation, ideas, hard work and using facilities already geared but perhaps inadequately coordinated. They will not be accomplished tomorrow. Neither Heaven nor Utopia can be purchased by any price, government or otherwise that we might be willing or able to afford, and so may I close with Rheinhold Niebuhr's classic prayer, "Oh God, grant us the serenity to accept what cannot be changed, courage to change what should be changed, and the wisdom to distinguish one from the other."

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EDITORIALS

PERRIN H. LONG, M.D.



ON THE QUANTITY AND QUALITY OF LIFE-

1. Fruitless Longevity

In the last few years, I am sure, many senior physicians and surgeons (and some junior ones as well) have been troubled, as I have been, by certain of the effects of our increasing ability to prolong the life of people. The sulfonamides, the antibiotics, a better understanding of the uses of blood, machines such as artificial pace makers, artificial kidneys, the newer breathing apparatuses, radical and improved surgical techniques, our better knowledge of nutrition, etc., all have played a role at one time or the other in saving, and hence prolonging the life of many people.

All have had the experience of walking down the hospital ward and witnessing a team composed of a resident, interns, nurses, and aides laboring with a patient who has cirrhosis, and who is in "hepatic" coma. We know that many hours and thousands of dollars may be expended in the care of this patient during the episode of coma, and that if the labors are "successful" the patient will emerge again into a painful, hopeless existence, which will eventually be climaxed by a fatal hemorrhage, or by coma and death. Next to the cirrhotic, there is a patient suffering the tortures of the damned because of the pain of tumor metastases, who has pneumonia. He is being vigorously and successfully treated with penicillin. His suffering will be prolonged. A couple of beds away sits a thirty-five year old Mongolian idiot playing in a pool of his own urine and feces, saved from an early death from infection by the "miracle" drugs. In the next ward a senile old crone gibbers at us, abandoned and totally rejected by her family, who already committed to a modern, overcrowded and understaffed modern Bedlam is waiting to recover completely from a staphylococcal bacteremia originating from a bed sore which had exposed her sacrum to the view of anyone who desired to look. At the end of the ward "Grandma" sits by her bed staring vacantly into space, and who as Glanville Williams¹ has pointed out so well has reached "an age of 'second childhood and mere oblivion' with the loss of almost all adult faculties except that of digestion. When the mind goes, purely animal health seems to improve . . . the ultimate logic of preserving the body while the mind decays would be the preservation of the physical part of human beings to eternity in some culture-solution, if such a thing were possible."

Who among us, after such sights can be proud, of what we have wrought? Are we really behaving as thoughtful, ethical, humanitarians? Are we failing because as was written in the *British Medical Journal*² we have forgotten that "A part of the morale of the sickroom in which a patient lies dying resides surely in the general belief that the good doctor will distinguish between the prolongation of life and the unnecessary prolongation of the act of dying?" What can and what should we do, and what should our attitudes as thoughtful men and women relative to the problem of the prolongation of the act of dying?

II. Moral, Religious, National, and Legal Responsibilities of Physicians in the Care of the Incurably Ill or the Dying

Before discussing possible solutions of the problem which will increasingly confront us, the moral, religious, and legal concepts concerned with the medical care of the dying, or of the hopelessly ill must be explored. That man should have a surcease from suffering was early proposed by Sir Thomas Moore (a noted Catholic) who wrote in the second book of Utopia, "When any is taken with a torturing, lingering pain, so that there is no hope either of cure or care, the priests and magistrates come and exhort them, that, since they are now unable to go on with the business of life, are become a burden to themselves and all about them, and they should really outlived themselves, they should no longer nourish such a rooted distemper, but choose rather to die since they cannot live but in such misery."1

Francis Bacon in the New Atlantis discussing the position of the physician when faced with the problem of the care of the hopelessly ill said, "I esteem it, the office of the physician, not only to restore the health, but to mitigate the pain and dolorours; and not only when such mitigation may conduce to recovery, but when it may serve to make a fair and easy passage."

In one of the most penetrating and fascinating discussions of problems concerned with the medical care of the hopelessly ill of the dying, Glanville Williams, the noted English barrister and scholar, wrote in The Sanctity of Life and the Criminal Law, "If it is true that euthanasia can be condemned only according to a religious opinion, this should be sufficient at the present day to remove the prohibition from the criminal law. The prohibition imposed by a religious belief should not be applied by law to those who do not share the belief, where this is not required for the worldly welfare of society generally. But, further, the ancient opinion that religion requires resignation, that the more unpleasant of two alternatives has some intrinsic moral superiority, has lost nearly all its support. At the present day it seems self evident to most of us that laughter is better than sorrow, oblivion better than the endurance of purposeless pain." (Italics mine, Ed.)

As physicians, one of our major concerns must be the resolution in our thinking of the meaning of that part of our Hippocratic Oath which reads, "Never will I give a deadly drug, not even if I am asked for one, nor will I give any advice tending in that direction." Now obviously, we as modern physicians do not interpret this literally. The alkaloids of digitalis are among the deadliest of drugs which the physician has at his command. A very few milligrams of a certain digitalis alkaloid taken by mouth will kill as certainly as does cyanide of potassium. Still thousands of refillable prescriptions are written for the digitalis alkaloids

daily. What then is meant by this Hippocratic injunction? Ludwig Edelstein of Hopkins, in his excellent study of the Hippocratic Oath3 believes that as euthanasia "was an everyday reality" in the period in which the Oath was being formulated that this portion of it was directed against this practice. He further indicates that the Pythagorean Doctrines, alone in the content of Greek thought at that time, rejected suicide unconditionally. However another eminent student of the Oath, K. Deichgraebers considered the injunction against poison to refer to murder by poisoning, an art not uncommon in those times. As so frequently happens when a discussion of a moral issue is attempted, different interpretations emanate from equally distinguished sources. It should be noted however, that a little later, Plato5 was of the opinion that invalids should not be kept alive. However there is evidence that his opinion was based less on suffering than on the social and economic burden which arises from invalidism. At about this same period, the Jews in the development of their moral philosophy had arrived at the concept embodied in the Sixth Commandment, "Thou shalt not kill." This subsequently, in about the Fourth Century A.D., was the basis for St. Augustine's pronouncement against euthanasia, and for all Christian opposition to this practice from that time on. As late as 1940, the Roman Holy Office condemned all direct euthanasia as a breach of the "natural and divine positive law." What must be remembered at this point, is that there is no unanimity of opinion as to what was meant by the Sixth Commandment when it was enunciated. Our Old Testament has passed through many hands and many interpreters since it was first reduced to the written word by Jewish scribes. For example, there is a considerable body of opinion which holds that this Commandment should read, "Thou shalt do no murder" as it appears in the Book of Common Prayer. Were this agreeable to all, then one would really have to stretch the imagination to define euthanasia in current terms. Furthermore as Fletcher points out,6 the Hebrew of the Decalogue "clearly means unlawful

killing, treacherously, for private vendetta or for gain."

A very complete discussion of the Catholic point of view on euthanasia is given by The Reverend Joseph V. Sullivan in his Catholic Teaching On the Morality of Euthanasia, published in Washington, D. C., 1954. In essence, Father Sullivan believes that as the supreme control of life rests in the hands of God and God alone, under no conditions is it lawful for man acting on his own authority to directly kill an innocent person. Father Sullivan does however support capital punishment and the mass slaughter of the combatants of any nation which is not (in the opinion of its enemy or others) waging a "just" war. Individuals so involved cannot be classed as "innocent" in his thinking. Furthermore, in his discussion of the problem, he invokes the "wedge principle" which denies the possibility of considering the individual circumstances in applying rules. Father Sullivan has said, "The wedge principle means that an act which if raised to a general line of conduct, would injure humanity, is wrong even in the individual case." It might be remarked that the employment of the doctrine of the "wedge principle" has characterized the writings of Catholic Moralists on a number of the ethical and moral practices concerning which the practicing physician repeatedly has to advise his patients.

Furthermore, it must be understood that in this presentation of views, certain Catholic authors have included more than positive action in defining euthanasia, and have broadened its meaning as is expressed in "Directive 22,"7 to include the following: "the failure to supply ordinary means of life, is equivalent to euthanasia."7 The injunction directive immediately poses the question as to the definition of the term "ordinary." Father Gerald Kelly, S. J.7 writes, "ordinary means of preserving life are all medicines, treatments and operations which offer a reasonable hope of benefit for the patient and which can be obtained and used without excessive expense, pain or inconvenience." He next defines extraordinary means of preserving life as the use of "all medicines,

treatments, and operations, which cannot be obtained or used without excessive expense, pain, or other inconvenience, or which if used would not offer a reasonable hope of benefit."

These definitions and their wording raise several questions. First of all, what is "reasonable?" Father Kelly makes no attempt to define "reasonable," so turning to Webster's we find that "reasonable" is: "1. Having the faculty of reason; rational. 2. Just; fair-minded; of acts, thoughts; agreeable to reason, not beyond the bounds of reason. 3. Inexpensive, moderately priced." So we can say that "reasonable" is probably synonymous with "fair" or "moderate." It obviously does not mean "good" and certainly not "poor" as far as prognosis is concerned. Now certain of Father Kelly's concepts relative to "ordinary" and "extraordinary" deserve much thought, especially by non-Catholic physicians. Father Kelly's point of view is that everyone "has the obligation to take the ordinary means of preserving life." This means also he writes, that "every patient has the duty to submit to any treatment which is clearly an ordinary means." (Italics mine, Ed.) As the directive "is enunciating only a minimum: this at least must be done for every patient." An "outstanding theologian" quoted by Father Kelly said that ordinary means would include "the medicines, nursing, etc., usually adopted by persons of the same condition of life as the patient." In thinking of "ordinary" and "extraordinary means", the physician must be aware that there is "a clear distinction between the duty of avoiding evil and the duty of doing good." Evil must be avoided "at all costs," but there are "proportionate limits to the duty of doing good." One does not have to go to inordinate lengths in doing good. In terms of the patient, if the exertion involved in doing good is excessive then it becomes "extraordinary." In the same way, if the inconvenience involved in preserving life as far as expense, pain or other hardships are concerned, then the means of preserving life become extraordinary.

Another point made by Father Kelly is that

"a medicine, treatment, etc., is to be considered an ordinary means, if it can be obtained, and used, with relative convenience, and if it offers reasonable hope of benefit." However it is important to remember that Father Kelly goes on to say "when either of these conditions is lacking, the means is extraordinary" (Italics mine, Ed.) In the question of "duty," the obligations of physician and patient differ. The patient must always use ordinary means, the doctor (the medical team) however "must do not only what the patient is obliged to do, but also what the patient reasonably wants, and what the recognized standards of the medical profession require."

The question is then raised, "How is the doctor to judge whether he is obliged to use extraordinary means?" First, "the wishes of the patients should be ascertained," but it must be remembered that the patient has the moral right to refuse "the extraordinary means." When the patient cannot make this decision because of his condition, the family's desires must prevail, as they represent the patient; if the family is not available, or cannot express a desire, or ask the physician to make the decision, then Father Kelly writes that the physician should "try to make a prudent estimate of what the patient would reasonably want if he could be asked. If means are lacking to determine this then the Golden Rule may be invoked. What would the doctor himself want if he were in the patient's condition?" Of course in all of these determinations by the doctor, his decisions are influenced by his understanding of and practice of professional standards. Father Kelly states that he has "observed two different professional standards in this matter." Some doctors believe that no matter how hopeless the situation, any and all means should be used to prolong life until its last flicker. If one does this, the question of euthanasia never enters the doctor's mind, and any feeling of defeatism is completely avoided. This standard may also be easiest on the doctor's conscience. He also avoids having to make any decisions which may be disturbing to him. In other words he takes the easiest

way. On the other hand, many very fine doctors take a different stand, and as Father Kelly puts it, "these doctors try to effect a cure as long as there is any reasonable hope of doing so; they try to preserve life as long as the patient himself can reap any tangible benefits from the prolongation." These doctors "think there is a point when such efforts become futile gestures; and they believe at this point the sole duty of the doctor is to see that the patient gets good nursing care and that his pain is alleviated." Father Kelly in comparing the "strict" and "moderate" standards which have just been described writes of the moderate standard "it seems to be very much in accord with the traditional policy of Catholic theologians of interpreting obligations according to a reasonable limit." Furthermore it is believed that the moderate standard "seems to square with a good Christian attitude. Finally, it seems that the moderate standard is least likely to impose excessive burdens on the patient's relatives. Relatives often endure terrific strain and undergo great expense while life is being prolonged by artificial means; and in some cases—e.g., terminal coma—very little good seems to ensue. The moderate standard spares them some of the strain and expense."

In contradistinction to the Catholic exposition of this problem, Protestant thought and discussion has been relatively limited. As far as most liberal Protestant sects are concerned, there are no firm pronouncements. Even such an authority on Protestant morals as the Archbishop of Canterbury in 1936 admitted "that cases arise in which some means of shortening life may be justified."8 He feels that this determination should be adverted to the medical profession. As pointed out by Rabbi Dr. Immanuel Jakobovits in Jewish Medical Ethics (Philosophical Library, 15 East 40th Street, New York 16, N. Y.) "The predominantly 'this-worldly' character of Judaism is reflected in the relative sparsity of its regulations on the inevitable passage of man from life to death. The rabbis, as we have noted, place a severely practical emphasis on the axiom that the ordinances of God exist so that man 'shall live by them.' (Lev. XVIII, 5)." However as Dr. Jakobovits states relative to the care of the incurably ill or the dying, "any form of active euthanasia is strictly prohibited. At the same time. Jewish law sanctions and perhaps even demands, the withdrawal of any factorwhether extraneous to the patient himself or not-which may artificially delay his demise in the final phase. It might be argued that this modification implies the legality of expediting the death of the incurable patient in acute agony by withholding from him such medicaments as to sustain his continued life by unnatural means . . . it is therefore not altogether clear whether they would tolerate this moderate form of euthanasia, though that cannot be ruled out." Rabbi Jakobovits goes on to say "That Jewish teachers were not out of sympathy with every effort to deliver incurables from their agony and cites RaN, Nedarum 40a, Kethuboth 104a Baba Metzia, etc., and Yakut, Proverbs No. 943 as authorities for his statement.

Aside from the religious aspects of the care of the incurably ill or the dying, another and most interesting factor has been injected into our ethical concepts concerning this problem by agencies of our government during the past few years. This has to do with the complete about face in policy, relative to the care of casualties resulting from a nuclear attack on this country. The current policy is to definitively the lightly injured first and the surviving seriously injured last, which means of course that there would be few seriously injured survivors after an attack. This is exactly the opposite point of view which had been held relative to the treatment of casualties in all previous wars in which our country has been engaged. The extraordinary fact is that this new policy has been accepted by the medical profession of this country without dissent or even much discussion. Its implications were too self evident.

As Williams points out,⁰ "Under the present law, voluntary euthanasia would, except in certain various circumstances, be regarded as suicide in the patient who consents, and murder in the doctor who administers." In England and America there are no records of a conviction, with one record of a prosecution in the United States, and one in England.

III. A Discussion of the Prolongation of Life in the Incurably Ill and the Dying

With the cost of prolonged illness becoming excessive, even when one has Blue Cross or other insurance, with the failure of Governments, Federal, State, and local to provide adequate means for the core of the aged despite the platitudinous mouthings of politicians at all levels, and with the emerging evidence that the American taxpayers will not exhibit a willingness to be taxed to the degree needed to support adequately the constantly increasing number of infirm people, more and more will be heard about "the quality of life."

As Mr. William McPeak¹⁰ of the Ford Foundation said at the dedication of the Palo Alto Medical Center, "have we not begun to be preoccupied with the security and length of age . . . with the quantity of life more than the quality of living?" Are we right in expending such a large proportion of our medical resources in trying to increase the quantity of life at the expense of its quality? Everyday in the wards of our hospital, an institution which is short of trained personnel in all categories except doctors, major portions of the time of nurses, practical nurses, and nurses aides are spent in increasing the quantity of life to the detriment of what might be done in improving the quality of life for other patients. Has not the medical profession missed the point in certain of its endeavors? Are we not piling up one Pyrrhic victory after another, while gradually losing the war. Are we not causing, as Dr. James Bordley, III has said,11 "untold anguish to the patient and his friends, insupportable financial burdens for family and community, the diversion of medical resources from those who could use them more effectively, and a great increase in the cost of hospitalization for the average patient," just because we are more interested in increasing the "quantity" of life no matter at what painful cost to the individual or his community?

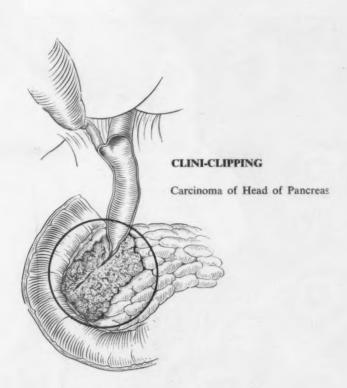
And with Dr. Bordley, we would like to point out that this is a very tough, in fact probably the toughest issue, which we as a profession have yet to face and with which we will have to deal over the next decades, because of its social, religious, ethical, and political aspects. But nevertheless, this issue must be faced by our profession. It should be pointed out that neither the problem nor its answer will be one concerning which euthanasia as generally understood will have to be considered. This to do with the extraordinary circumstances which the Western World has created. It involves an ethical concept of who among us, has the right to exercise the power to deprive one of death? As has been said in Dr. Bordley's11 presentation of the problem, "Today even the weakest arm unless restrained by a stronger, is sometimes capable of withholding for weeks or for months that one comfort" of the dving.

In concluding the discussion of this controversial and provocative subject, I would like to quote once more from Dr. Bordley:11 "I don't think I need emphasize the bearing that this has upon the house officer's role in patient care. I would like to make the house staff realize that they were not shirking their responsibilities if some of the time and energy which they now feel compelled to spend in the cause of fruitless longevity were to be devoted to the factors which make it possible for their doomed patients to live in peace and comfort, and for their surviving patients to live more abundantly. I use this expression in the qualitative sense in which it was originally used in the New Testament, (St. John, 10:10, 'The thief cometh not, but for to steal and to kill, and to destroy: I am come that they might have life, and that they might have it more abundantly.') rather than it its more familiar quantitative sense." We cannot, as Christian or Jewish physicians, escape the problem of quantity and quality in life. It is up to us to reach an ethical and humane solution.

Bibliography

- 1. Williams, G.: The Sanctity of Life and the Criminal Law. Alfred K. Knopf, New York, 1957. P. 349-50.
- 2. Ibid. P. 337.
- 3. Edelstein, L.: Supp. Bull. History of Med., P. 10, 1943.
- 4. Deichgraeber, K.: Quellen Z Gerichte der Naturwissenschaft und Medizin—III. P. 36, 1932.
 - 5. Plato: Republic, III, P. 405, and V. P. 459.
- 6. Fletcher, J.: Morals and Medicine, Princeton, New Jersey, 1954, P. 196.
- 7. Kelly, Gerald, S. J.: Medico-Moral Problems, Catholic Hospital Association, P. 128.
- 8. Parliamentary Debates (House of Lords), Vol. 169, Cols. 562-3.
 - 9. Williams, G.: Ibid. Pp. 318-326.
- 10. McPeak, W. Postgraduate Medicine, 27:119 (Jan.)
- 11. Bordley, J. III: Congress on Medical Education and Licensure. Chicago, Illinois, Feb. 6-9, 1960.





Remember When...

Do you remember when ...

...there were no direct writing electrocardiographs?

... the patients were placed in a chair with special arms and the electrodes were applied with gauze soaked in saline solution?

sume someon.
...it was rare that changes produced by myocardial infarction were noted in the electrocardiogram?

or house staff in electrocardiography?

grams were "ordered" in a week?
... the world went on about the same without miles and miles of EKG tracings?

Photo: United Press International











THE LONG AND SHORT OF IT

From Your Editor's Reading

The Correction and Prevention of Deformity in Rheumatoid Arthritis

In rheumatoid arthritis, it is supremely important that patients should be able to walk and to use their hands.

If flexion deformities of knees and wrists are prevented, arthritic patients will never become crippled.

Deformity of the knee can be prevented by keeping it extended in a caliper and encouraging the patient to walk.

Deformity of the wrist can be prevented by continuous immobilization in plaster splints which allow the fingers to be used and the hand to be rotated.

Arthritic joints which are immobilized for a few weeks do not ankylose.

MICHAEL KELLY, M.D. The Can. Med. Assn. (1959), Vol. 81, No. 10, Pp. 827-831.

Some Characteristic Patterns of the Electrogastrogram in Lesions of the Small Intestine

The experimental work in animals has been directed to investigating the cause of enteritis. This does not take into account the psychological effects from the higher centres or the chronicity present in humans. The clinical problem facing the surgeon is related to certain cases with widespread inflammation of the gastrointestinal tract, where local excision is either impossible or dangerous to life. The results of vagotomy based on a long-term follow-

up have proved satisfactory. The electrogastrograms have provided a means of determining when a vagotomy is indicated because the activity can be measured objectively, provided the inflammatory process has not progressed too far into fibrosis, polyposis and either lymphatic or intestinal obstruction. This simple surgical procedure can be performed without danger to life and can usually be relied upon to reverse the process.

Eight cases of widespread regional enteritis treated by vagotomy were reported in a previous paper; since that time we have had ten more, some of which are included in this paper. This makes a total of 18 patients, most of whom have been seen at frequent intervals either in hospital or in the out-patient department. This gives a ten-year follow-up of the first group, all with satisfactory results. In addition to this we have recordings made during operations on some of the cases. The effect of drugs, particularly the anticholinergic drugs, has been studied and reported in another communication. By this means it has been shown that a surgical vagotomy has a quieting effect immediately; this effect persists for months and years afterwards. A course of medical therapy affects the recordings; its influence is apparent after a single dose and is marked after multiple ones, but this may not be sufficient in severe or widespread cases.

A vagotomy should be performed before fibrosis is marked and the inflammatory process is irreversible. Dragstedt's work on the effect of vagotomy on the gastric, duodenal and stomal ulcers has been confirmed by the electrogastrograms, while Clarence Dennis's thesis on the value of vagotomy in ulcerative colitis has been shown to apply only to the proximal half of the colon. The whole area between these two—that is, the small intestine—has been demonstrated to be, partially at least, under vagal control. Vagotomy is a practical surgical procedure in cases with widespread disease and apparent skip areas in which resection is impossible or undesirable.

H. S. MORTON, O.B.E., M.B., and J. F. DAVIS, M.D., M.Eng. The Can. Med. Assn. (1959), Vol. 81, No. 12, Pp. 1000-1008.

Some Short-Term Metabolic Effects of Chlorothiazide

A group of 10 subjects, including eight hypertensives and two normal controls, were placed on a rice diet for seven days. The hypertensives and one control subject were given 1.0 g. of chlorothiazide on the last four days of the study. The other control remained on the diet but was not given the drug. Under these conditions the drug caused a decrease in serum sodium, chloride, and potassium values, and a rise in serum values for (Na + K — Cl), taken to represent bicarbonate, and for creatinine.

Administration of the drug increased urinary excretion of sodium, potassium, chloride and bicarbonate. These changes were due to effects of chlorothiazide on the renal tubules, since, following its use, the glomerular filtration rate decreased. The increase in potassium excretion persisted throughout the study while the increased excretions of sodium, chloride and bicarbonate tended to revert to baseline values in three or four days. It is evident that when dietary sodium is markedly restricted, potassium loss may be marked, and sustained after administration of the drug.

Most of the initial body composition data on the hypertensives were within normal limits. After the ingestion of chlorothiazide, decreases occurred in plasma volume and total exchangeable sodium whereas the venous haematocrit value increased.

Chlorothiazide caused a decrease in the urinary excretion of citric acid in all subjects tested. In two normal individuals on a "normal" diet there was a decrease in the excretion of alpha ketoglutarate. No consistent influence of the drug on the excretion of pyruvate and lactate was noted.

A. RAPOPORT, M.D., B. M. EVANS, B.Sc., and H. WONG, B.Sc. The Can. Med. Assn. (1959), Vol. 81, No. 12, Pp. 984-990.

Management of Decubitus Ulcers

- 1. The etiologic factors leading to the formation of decubitus ulcers are enumerated.
- Prolonged pressure is considered the most important cause.
 - 3. Preventive care is stressed and described.
- Nonsurgical methods of treatment are presented.
- 5. The advantages of surgical closure are given. The principles of surgical closure are: excision of the ulcer and any bursae present, careful hemostasis, removal of bony prominences, and closure without tension.
- 6. Experience with 1,000 decubitus ulcers over a ten-year period showed successful surgical closure in 84 percent of the sacral ulcers, 86 percent of the trochanteric ulcers, and 97 percent of the ischial ulcers.
- 7. Late complications of bilaterial ischialectomy are discussed.

ANDOR A. WEISS, M.D., F.A.C.P. N. Y. S. J. of Med. (1960), Vol. 60, No. 1, Pp. 79-82.

Depressive States and Drugs

Phenylethylhydrazine dihydrogen sulfate or phenelzine (Nardil®) is a useful adjuvant to psychotherapy in treatment of selected types of depressive illness dealt with in this paper (that is, largely neurotic or reactive depressions treated in an open setting as outpatients, or in private practice).

Pharmacologically, phenylethylhydrazine dihydrogen sulfate has some sympatheticomimetic potential. In the occasional cases its stimulant effects can be marked.

Phenelzine exhibited onset of pharmacological activity within two to six days, characterized by better sleep, by a feeling of fatigue and weakness in many, and sometimes by dizziness and tremulousness. As its action continued, usually within one month, some tendency for increased motor activity, improved mood, better relationship to doctors, patients and nurses, increased feeling of inner drive (action tendencies), better appetite, and improved sleep when these were previously impaired, was seen. In our series this was seen in 42 of the 60 patients. Only 33 of these were classed as "helped" in terms of the total therapeutic outcome. It must be remembered in regard to the total therapeutic outcome that improvement occurred in the patients in this series with the use of both psychotherapy and phenelzine and, further, that the majority in this series were oral, passive-dependent patients largely suffering from neurotic depressions.

Certain sensitive patients can become manic or hypomanic while on this drug.

By intramuscular administration its action is rapid and more pronounced than by the oral route. A burning sensation, without induration or abscess formation, is produced at the site of the injection for a few minutes.

Serious toxic effects were absent in this series. The blood pressure can be raised to a considerable degree in the occasional patient (four patients in this series). Caution is therefore indicated in persons with an impaired cardiovascular system. One patient showed a fall in blood pressure of 10 mm. Hg., with development of anxiety and insomnia, and others have been known to develop postural hypotension.

The most frequent side effects were dizziness, weakness, fatigue or tremulousness, sometimes with palpitations and sweating; drowsiness, indigestion, the development of hypomanic or manic reactions, increases in blood pressure and sometimes in pulse rate. Less frequent are insomia, a sense of muscular stiffness, sexual impotence (one case in this series), hypotension and constipation. Side

effects were not prominent in the majority of patients.

The doses used in this series were relatively high, and considerably exceeded the 45 mg. daily recommended by the makers for initial therapy (average for inpatients, 69 mg. and for outpatients, 78 mg. daily).

Although no toxic effects on hepatic function were seen in this series, the fact that other monoamine oxidase inhibitors have occasionally produced severe hepatic reactions should inspire close survey of hepatic function.

The need to treat every patient as an individual, and avoid dependence on the chemical action of an "anti-depressant" alone, is again stressed. This applies to all anti-depressant drugs.

G. J. SARWER-FONER, M.D., E. K. KORANYI, M.D., A. MESZAROS, M.D., and H. GRAUER, M.D. The Can. Med. Assn. (1959), Vol. 81, No. 12, Pp. 991-995.

Faecal Loss of Fluid, Electrolytes, and Nitrogen in Colitis Before and After Ileostomy

The fluid, electrolyte, and nitrogen loss was studied in nine patients with ulcerative colitis before operation and in sixteen patients after operation.

Before operation the faecal loss in all patients exceeded the normal, although the loss of potassium was not as high as was expected from the results of previous investigations.

After operation the greatest excretory activity when the volume of discharge rose to as much as 1500 ml. was during the 1st week. The sodium content of the discharge was 120 mEq. per litre, but the potassium content varied. Nitrogen loss varied between 0.4 and 1.8 g. daily.

In patients treated with cortisone postoperatively the volume of the discharge gradually increased to normal values, without a peak. The sodium content was 109 mEq. per litre, and relatively large amounts of potassium were excreted.

In a patient with peritonitis the loss both of fluid and cations was increased considerably,

necessitating continuous intravenous supplements throughout the period studied.

F. G. SMIDDY, M.B., I. B. SMITH, M.D., S. D. GREGORY, B.Sc., J. C. GOLIGHER, Ch. M. The Lancet (1960), Vol. I, No. 7114.

Primary Hypertension in the Elderly

The clinical characteristics were examined of 100 patients with documented primary hypertension who were over 60 years of age and who had been under observation because of hypertension at or before the age of 50. Thirtythree were followed until death and 67 are still living. Long survival and normal life expectancies were observed frequently. The only apparent differentiation from other patients with primary hypertension lay in the fact that minimal elevations of diastolic blood pressure were encountered in the majority of this group; in the remainder, unusually high casually recorded pressures were the rule, often with marked lability demonstrable with rest. These data suggest that the "floor" of the diastolic blood pressure, if the arterial tension is related to the development of complications, may be more important than the mean or peak values.

> GEORGE A. PERERA, M.D., F.A.C.P. Annals of Int. Med. (1959), Vol. 51, No. 3, Pp. 537-540.

Blood Pressure Levels and Abnormalities in Cirrhosis of the Liver

Blood pressure determinations were performed in a group of 365 patients ill with cirrhosis who were not in coma and had not recently bled. Comparisons were made between blood pressure levels in different age groups in this series and expected blood pressures for the same age groups in otherwise normal individuals. Data were collected with respect to severity of disease as judged clinically, nutrition of the patient, presence or absence of jaundice, edema, ascites and a history of bleeding varices, and liver function tests. Fiftythree patients were followed for a period of a year or more, and changes in their clinical status and blood pressures were noted. Twentyone patients were subjected to "cold pressor"

tests and their reactions evaluated. It is concluded from these observations that the blood pressure levels in patients ill with cirrhosis are not abnormally low provided they have not recently bled or are not in coma; in fact, the levels are slightly above the expected average for patients otherwise well and of the same age. No correlation could be noted between blood pressure levels of the patients studied and the extent and severity of their disease. Hypertension was not uncommon in this group of patients. In the group serially studied, no consistent changes in blood pressures were noted which could be correlated with their clinical improvement or deterioration. In the patients subjected to "cold pressor" tests, reactions to the stimuli were not abnormal.

LOUIS J. VORHAU, II, M.D. Annals of Int. Med. (1959), Vol. 51, No. 2, Pp. 290-300.

The Electrocardiogram of Alcoholic Cardiomyopathy

In 20 consecutive patients with alcoholic cardiomyopathy, abnormalities in the electrocardiogram were considered to be distinctive in 17, and although not so specific in the remaining 3, they suggested the diagnosis in these patients also.

The distinctive electrocardiographic deformities were limited to the T wave which was a depressed dimple in eight patients, upright and cloven in seven, and spinous in two. Whenever the T wave in chest leads was obviously inverted, as happened in two patients, the narrowness of the wave remained as a characteristic feature, and differed from the changes usually met in cardiac infarction.

In three patients the presence of extrasystoles suggested the diagnosis in that they were multiple, arose from different foci, or were associated with moderate tachycardia. Extrasystoles were also present in company with the distinctive signs in six other patients. Auricular fibrillation was found in two patients, and paroxysmal auricular tachycardia in another two.

Bundle-branch block, present in two patients,

and depression of the S-T segment in two, were regarded as sinister signs, for they occurred in the presence of enlargement of the heart with failure. Two patients exhibiting such cardiographic signs died. With these exceptions, abstinence from alcohol, together with digitalization in the two patients with fibrillation, sufficed to return the patient to health, and without the addition of thiamine therapy.

This investigation has brought proof that addiction to habitual and excessive spirit-drinking is prevalent, and that its injurious effects on the heart often go unrecognized. Moreover, it has shown that the early diagnosis of alcoholic cardiomyopathy is most rewarding, for abstinence from spirit-drinking before it has progressed to the more serious phase of complicated alcoholic myocardosis, will enable the patient to regain his customary health. Familiarity with the electrocardiographic abnormalities identified with alcoholic cardiomyopathy will help to attain this desirable objective.

WILLIAM EVANS British Heart Journal (1959), Vol. XXI, No. 4, P. 445.

Subarachnoid Haemorrhage in the Army

The natural history of 103 cases of spontaneous subarachnoid haemorrhage in Army patients in the years 1950-1956 is described.

The incidence and mortality rose steadily with age. Death was commoner in the first five days than later. Recurrent bleeding occurred at a steady rate after the first few days. Recurrences carried a higher mortality than the first haemorrhage.

When the cases were classified clinically in terms of the severity of the initial haemorrhage, the death-rate was found to be significantly greater among those who were comatose or completely inaccessible, or who had a complete hemiplegia. The severity and duration of the disturbance of consciousness was the most reliable prognostic sign.

To prevent recurrences, surgery, and therefore angiography, should be undertaken before the end of the second week. Unfortunately angiograms showed the probable source of bleeding in less than half of those so investigated. Transporting the patients in the acute stage did not aggravate their condition.

B. BEVAN, M.A., F. I. CAIRD, B.M., and I. E. HUGHES The Lancet (1960), Vol. I, No. 7116, P. 133.

Lung Cancer Among White South Africans

"The conclusions which appear to emerge from this study include the following:

- 1. White male South Africans have long been the heaviest cigarette smokers in the world, and yet they have a relatively low lung cancer mortality rate.
- 2. British male immigrants to South Africa who died between the ages of 45 and 64 had a much higher lung cancer rate than either white Union-born men or male immigrants from other countries for the same age groups. As most of the British immigrants came to South Africa before reaching middle age, British cigarettes are likely to have formed only a small percentage of the total cigarettes smoked by those dving of lung cancer at these ages. It is therefore unlikely that the difference in lung cancer mortality experience in these age groups is attributable to differences between South African and British cigarettes; and this would seem to be broadly confirmed by the fact that the lung cancer mortality rate in the U.S.A. is much lower than the rate in Britain, though the same type of tobacco formed the basis of cigarettes in both countries.
- 3. The excess lung cancer mortality among British male immigrants, as compared with Union-born white men, is found only in those dying of lung cancer under the age of 65. Above that age there is no significant difference between the lung cancer mortality rates in the two groups. This suggests, therefore, that the greater liability of the more recent British immigrants to lung cancer is a relatively new phenomenon, and that the immigrants were exposed to the aetiological factor or factors concerned before they left Britain.
- The higher incidence of lung cancer among residents in South African towns, and in Durban particularly, as compared with the

incidence among residents in rural areas, would seem to be strong evidence that atmospheric pollution is an important factor. If so, it is equally likely that the higher incidence among the more recent British immigrants may again be connected with the atmospheric pollution to which they were exposed before emigrating. It is also a matter of interest that a preliminary New Zealand study showed that there was a higher rate of lung cancer among British immigrants there than in the New Zealand-born (Eastcott, 1956).

Bronchial carcinoma must result from the total effect of genetic and environmental factors, and it is clear that the environmental factors are chiefly responsible for the present high incidence of the disease. There is evidence from other studies that cigarette smoking is such a factor. However, the relatively low incidence of lung cancer generally among the heavy-smoking South African men, the higher and rapidly rising incidence in the growing cities, and the high incidence in the younger age group of immigrants from Britain, found in the present study, suggest that the air pollution which occurs in modern industrial lifesmoke, smog, traffic fumes, etc.-may be a major factor responsible for the alarming increase of lung cancer in South Africa and Britain, and presumably elsewhere.

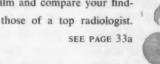
"Analysis of the 1947-56 male lung cancer

deaths in South Africa by age, country of birth, and place of residence has shown that among those dying aged 45 to 64 (but not among those dying aged 65 and over) British immigrants have had much higher lung cancer mortality rates than Union-born men or immigrants from other countries. Further, among all three categories in South Africa - Unionborn men, British male immigrants, and male immigrants from other countries - the lung cancer mortality rates have increased approximately with the level of urbanization and industrialization. Neither the differences between the lung cancer mortality rates of these three groups nor the urban/rural gradient can be attributed to differences in smoking habits. Instead, both would seem to have been due to the exposure of the men concerned to different degrees of atmospheric pollution. The excess lung cancer mortality among British immigrants aged 45-64 would seem to have been due to their exposure in Britian to some form of atmospheric pollution to which those emigrating before 1910 had not been subject. The urban/rural lung cancer mortality gradient in South Africa would appear to reflect the increasing atmospheric pollution that is encountered in passing from rural areas to areas of increasing industrialization."

> GEOFFREY DEAN, M.D., M.R.C.P. Brit. Med. J. (1959), No. 5156, Pp. 856-7.

WHAT'S YOUR DIAGNOSIS?

Read the film and compare your findings with those of a top radiologist.



Pneumococcal Meningitis and Mastoiditis

CASE REPORT:

Miss M. C., Negro, Age 33
Presentation: Dr. Yale Enson
Discussion: Dr. Robert Austrian

The patient who will be presented this morning is Miss M. C., a young Negro woman who entered the hospital suffering from pneumococcal meningitis secondary to otitis media. Dr. Enson will present this patient's record.

DR. ENSON: Miss M. C., is a 33-year-old woman who had her first admission to the Second Division Medical Service on the 17th of January 1958, because of severe earache, chills and fever. She had been in her usual state of health until approximately a week before admission when she caught cold and had coryza; a running nose, and a cough. Two days later she made the sad mistake of sitting in a bus next to an open window. She dedeveloped a severe earache immediately thereafter which persisted till the morning of admission. She awoke then with feverishness and in the course of the day had chills and noted the

onset of a headache which became more severe as the night progressed. She finally sought admission.

We were able to gather from her family at a later date that she was a severe, staunch, chronic alcoholic of many years duration. She had notoriously poor dietetic habits and began to get into trouble in August of 1956, when she was treated elsewhere with transfusions for an episode of melena and weakness. In August 1957, she reported to the family that she had been having "falling out spells," and the family noted from time to time that she would get a little bit yellower than usual around the eyes, that her abdomen and ankles had begun to swell and that she would have peculiar periods of lethargy.

Physical examination at the time of admission revealed a well-oriented, acutely ill, adult Negro woman who was complaining of severe earache. Her face was rather puffy, her eyes were quite yellow. There was no papilloedema. The right eardrum was tense, blue-black in color and bulging and there was a serosanguineous discharge in the external auditory canal. The neck was supple. The heart and lungs were clear and a firm, non-tender liver was palpable about 8 cm. below the right costal margin.

The initial laboratory studies showed that she had considerable bile and urobilinogen in the urine, that her hemoglobin was 7½ grams

From the Department of Medicine, Kings County Hospital Center, and the Downstate Medical Center, State University of New York, Brooklyn 3, New York.

percent and her hematocrit 24. The serum was quite yellow. Her white count was 19,200 with 85 percent polymorphonuclear leukocytes. The serum electrolytes and serology were normal and her liver function studies were subsequently recorded as showing evidence of moderately severe hepatocellular dysfunction.

Five hours after admission to the ward, the patient suddenly had a grand mal convulsion which recurred again two hours later. Examination at that time revealed that her temperature had risen from 104° on admission to 106°. At that time also she had become stuporous: and, although she still had no papilloedema, severe nuchal rigidity with positive Kernig and Brudzinski signs were present. Lumbar puncture was performed which revealed grossly purulent spinal fluid under increased pressure; and gram positive diplococci were noted which on direct quellung reactions were found to be pneucococcus Type XVIII. Subsequently, the identical organism was recovered from the sputumn and from the drainage from the right ear as well. Following the initiation of therapy, we obtained skull, mastoid, and sinus films in addition to chest films. A surgical consultant saw the patient and felt there was no evidence of fracture or localizing signs of abscess. The ear, nose and throat consultant felt also with us that there was an otitis media and probably purulent mastoiditis as well.

If I may call your attention to this chart for a moment to summarize the patient's course in the hospital, you will note that shortly after the convulsions and immediately after lumbar puncture was performed, the patient was started on penicillin 60 million units intravenously a day, and she was given Dilantin® and Luminal® intramuscularly. An endotracheal catheter was inserted to maintain her airway, and we gave her transfusions over the next 36 hours until her hematocrit rose to 35%.

Her condition seemed to be fairly satisfactory until early of the evening of the first day in the hospital when she became hypotensive quite suddenly. Treatment with Neo-Synephrine® and hydrocortisone intravenously was begun. She responded rapidly to the vasopressor

agents and maintained well her blood pressure and urinary output subsequent to that time. The following morning she was noted still to be rather stuporous. Her icterus increased considerably. Her spinal fluid at that time was sterile although still quite purulent. Because of the feeling that hepatic coma might be present, administration of neomycin solution by Levine tube was initiated.

Late in the evening of the second hospital day, a radical mastoidectomy was performed under local anesthesia. On the following day, gallop rhythm was heard for the first time and patient was given mercurial diuretics. The gallop disappeared within twenty-four hours. A tracheostomy was performed at that time to insure an adequate airway. By the fifth day in the hospital, the patient began to have progressive clearing of her mental state. On the fourth day, treatment with Dilantin and Luminal had been discontinued. They may have contributed to her profound coma.

By the fifth day in the hospital, we were able to completely maintain her blood pressure without pressor agents. The dose of steroids was tapered rapidly thereafter. A stimulating dose of ACTH was given for three days prior to the steroids being discontinued completely; and, by about the fourteenth hospital day, the patient was completely off the therapy. At the present time she is fully ambulatory, still somewhat jaundiced and is anxious to go home.

DR. LONG: Thank you very much, Dr. Enson.

DR. DEROW: The film of both mastoids show a general haziness, cloudiness of the right mastoid as compared to the left. On the left side, which is the normal side, you can see the mastoid itself well delineated. On the right side, there is a breakdown of the mastoid cells and a loss of visualization of the cell walls. The findings are those of an acute mastoiditis.

DR. LONG: Dr. Austrian, will you continue. DR. AUSTRIAN: This patient is of considerable interest; one, because she represents a therapeutic triumph for Dr. Enson and his associates; and second, because of the number of problems which arose in the management of

this rather complicated therapeutic problem.

Pneumococcal meningitis is probably the most common form of bacterial meningitis that we see in this hospital today. In the last five years, on our service, we have had twentyseven bacteriologically-proved cases. These represent a variety of types, including twelve strains of types for which we had a diagnostic antiserum and three other strains of types for which we were unable to provide serological identification of the organisms. We have had four instances of infection caused by pneumococcus Type III, three instances of infection caused by Types V, XIV, or XIX and two instances of infection with pneumococcus Type VIII and Type XII. In seventeen of these twenty-six cases, the blood culture was positive and in five it was possible to establish the concomitant diagnosis of bacterial endocarditis involving the aortic valve with rupture or perforation of one of the aortic cusps.

There are several modes whereby infection of the meninges with pneumococci may arise. It may be secondary to hematogenous infection which arises in turn following acute pneumococcal pneumonia or the organism may infect the subarachnoid space by extension from the paranasal sinuses or mastoids.

It is very important to keep these two modes of pathogenesis in mind because they will have a bearing on the treatment of the patient. If the disease is secondary to hematogenous spread from the lung there is nothing to be done about the initial local lesion aside from antibacterial therapy. But when pneumococcal meningitis is secondary to sinusitis, to fracture of the skull or to mastoiditis, surgical intervention may play an important role in the management of the patient's illness. Insofar as chemotherapy is concerned, penicillin is the drug of choice. Initially, when penicillin was first available, it was customary to practice both intrathecal as well as parenteral administration of the drug. It became apparent soon that it was difficult or impossible to establish adequate levels of penicillin in the cerebral ventricles and in the basal cisterns of the cranial vault with this form of therapy; and, for this reason, many patients having pneumococcal meningitis treated with relatively small doses of parenteral penicillin coupled with the administration of the drug into the lumbar subarachnoid space relapsed and ultimately succumbed. An important step forward was made when Dowling and his coworkers introduced the concept of massive parenteral therapy; and in their initial report, this group of workers administered one million units of penicillin intramuscularly every two hours throughout the day and night, a total of twelve million units of penicillin in twenty-four hours.

We have used progressively larger doses in recent years; and, at the present time, we administer sixty million units of penicillin a day. There is no particularly rational basis for the choice of this unitage which represents a large amount of penicillin. In terms of dry weight, it is thirty-six grams of solid material. There is no other chemotherapeutic agent currently available which can be administered in comparable doses. This fact is one reason why penicillin is such a valuable drug for the treatment of many types of infection, for it is almost completely devoid of toxicity, if one distinguishes toxicity from allergenicity.

The treatment of this patient followed wellestablished lines. She was given large doses of penicillin parenterally and as soon as it was ascertained that she had mastoiditis, steps were taken to insure the surgical treatment of this lesion.

It would have been of interest to have known when the patient was admitted and still alert, whether or not there was any tenderness over the mastoid process because this finding might have given us a clinical clue of the presence of the lesion, the presence of which was established subsequently by roentgenological techniques.

I saw this patient on her second hospital day and it was not without some perturbation that I learned from Dr. Enson that she was receiving adrenal steroids. The use of these agents in an infection such as this is not without its hazards. The patient, however, had shown improvement clinically and under the stimulus of the house staff, we were led to look further into the situation.

The issue at stake in this particular matter was whether or not bactericidal levels of penicillin were being achieved in the spinal fluid. To answer this question we took spinal fluid from the patient twenty-four hours after she had been on sixty million units of penicillin per day. Most of this material was frozen while an aliquot was cultured and found to be sterile, and then a titration of the penicillin in the spinal fluid was set up against the patient's own organisms. We found that there was complete inhibition of growth or killing of the pneumococci isolated from the patient when 100,-000 organisms were inoculated into 1 ml. of a 1:64 dilution of the spinal fluid. The sensitivity of this organism is about 0.03 units per ml.; so we can calculate there were roughtly 2 units of penicillin per milliliter of spinal fluid, an amount which is quite adequate to deal with this infection. I think in the light of these findings that steroids could have been used safely because it was not necessary to call upon the patient's leukocytes to participate in the killing of the organisms.

The question of polypharmacy comes up so frequently in dealing with meningitis that perhaps this subject is worth a comment together with a word about the mode of action about penicillin. Penicillin is a very interesting drug. It acts only upon bacteria that are actively dividing; and, in the last year or two, it has been found that penicillin acts to inhibit the formation of the bacterial cell wall. If the bacteria are not dividing, even though they may be metabolizing glucose actively and respiring, they will not be harmed by penicillin. What penicillin does is to produce dyssynchrony of growth. In the presence of penicillin and under conditions permitting growth, the protoplasm of the cell will continue to increase whereas the cell wall cannot be formed. The naked protoplast is peculiarly susceptible to osmolar forces, and when a cell wall does not develop in what we consider normally to be an isotonic environment, the cell lyses and dies. It is very important, therefore, not to inhibit cell division

while infection persists, or the bacteriocidal action of penicillin may be nullified. For this reason, one avoids the use of combinations of bacteriostatic drugs and penicillin in the treatment of meningeal infection. There is only one experiment involving meningeal infection in man which indicates interference with the node of action of penicillin by a bacteriostatic drug, i.e. Aureomycin. In this experiment patients treated with penicillin alone had a mortality of thirty-seven percent whereas those treated with penicillin plus Aureomycin had a mortality of seventy percent. This difference was statistically significant by the small chi square test, and I think it would take considerable courage, if one may use that word aptly, to repeat this experiment. We use, therefore, only bacteriocidal drugs in the treatment of pneumococcal meningitis.

Pneumococcal meningitis is still a very serious disease and the mortality on our service is between forty and fifty percent. Many of these patients arrive at the hospital at a stage which might be designated as being "past the physiologic point of no return." They have had an irreversible metabolic insult and even though they are bacteriologically cured in the sense that one cannot recover from their tissues at autopsy or from their spinal fluid or ventricular fluid at autopsy, viable organisms, sufficient damage has been done to them to prevent recovery.

I think we need to get more information relating to the value of steroids in this infection and I hope that, with Dr. Enson, we can pursue this matter somewhat further.

It is always helpful to be able to make a bacteriologic diagnosis and here the diagnosis was established within five minutes of the receipt of the spinal fluid by the simple process of pneumococcal typing. The "quellung reaction is a very useful one. Unfortunately, we get many patients in this hospital who have received from their physician what I sometimes call "the parting shot." If we could discourage our colleagues from giving an injection of penicillin to the patient entering the ambulance to be transferred to the hospital, we would be in

a little better position to treat some patients than we are today.

DR. Long: Thank you very much, Dr. Austrian. Dr. Enson, did you see this patient operated upon?

Dr. Enson: No, I didn't, Dr. Long.

DR. LONG: I was just wondering how long it took.

Dr. Enson: The operation took about 35 minutes.

DR. LONG: Does anyone know how many mastoidectomies are done in a year in this hospital for acute mastoiditis now? I haven't heard any figures lately.

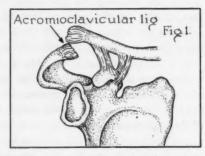
I bring that point up because it is getting to be extremely rare operation and I have always said if I were to have a mastoidectomy the otolaryngologist who operated upon me would have to be more than fifty-two years of age. That is getting him out of the era when—or rather back in the era when mastoidectomies were relatively frequent and they haven't been since about 1937.

DR. STEIFEL: I would like to ask one question. Why was it felt that the penicillin was not adequate to control the mastoiditis?

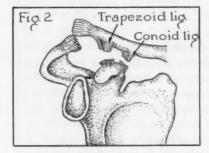
DR. AUSTRIAN: This question brings up the important matter of whether or not antibiotics are a substitute for surgery and I am firmly convinced they are not. A mastoiditis which is followed by secondary infection of the meninges is a situation in which there is pus under pressure. Antibiotics and surgery are complementary; they are not substitutes for one another in a situation such as this. What one wanted to do was to establish external drainage as well to provide therapy directed against the organism. I think that whenever there is accessible pus under pressure it should be drained with the surgeon's knife. Another important test to do in a patient such as this is the Queckenstedt Test. It may reveal the presence of a venous sinus thrombosis which might otherwise be overlooked.

DR. Long: Last night, Colonel Pulaski who has been working on surgical infections in the United States Army since 1944 emphasized that when you have pus under pressure and it can be reached by the surgeon's knife you must get it as promptly as possible if you are going to get the best effects with antibacterial substances.

CLINI-CLIPPING



Partial acromio-clavicular separation (note tear of acromio-clavicular ligament).



Complete acromio-clavicular separation (note tear of acromio-clavicular and coraco-clavicular ligaments).

Clinical Pathological

Conference

NORWALK HOSPITAL, Norwalk Connecticut

On 12-18-57 at 4:58 PM this 53-year-old white, married male was transferred from Hospital X to the Medical Service of the Norwalk Hospital with an admission diagnosis of uremia and cerebral vascular disease. The patient's chief complaint on admission was generalized weakness and inability to walk.

Present Illness

Approximately 10 months prior to this admission the patient was admitted to the Norwalk Hospital for treatment of a "carbuncle" on his back. This was excised en masse. The surgical specimen was reported as "ruptured sebaceous cyst with acute and chronic inflammation."

At that time there was a history of known diabetes of approximately 7 years' duration. Following hospital discharge he noted gradual and progressive weakness in his lower extremities until approximately 4 months ago, he was unable to walk. Because of this he entered the X Hospital on 8-12-57.

At that time he also had some difficulty in coordination of fine movements of the fingers, as well as some incontinence of urine.

Physical Findings

On admission to X Hospital, neurological examination showed hyperactive deep tendon reflexes and a positive Babinski on the left side. A lumbar puncture revealed an elevated spinal fluid protein of 173 mgms. A myelo-

gram followed and was unsatisfactory although a questionable lesion in the region of the 6th and 7th cervical vertebra could not be ruled out. The patient was discharged and returned to the X Hospital 3 days later for a repeat myelogram: the cervical defect seen in his first examination of the cervical region was now interpreted as osteophytes. On 8-27-57 the patient became febrile, manifested increasing weakness and had hematuria.

Blood cultures done at this time revealed a staphylococcic septicemia for which the patient received Chloromycetin, penicillin and streptomycin with hydrocortisone. The patient showed some clinical improvement on this therapeutic regime; however, an episode of gastrointestinal bleeding, presumably secondary to steroid medication had occurred. Because of this steroids were discontinued.

Following this the blood cultures were negative but there was an exacerbation of his clinical complaints and in addition there was swelling with pain in the left shoulder which became abscessed. The possibility of an osteomyelitis of the head of the humerus could not be ruled out.

The patient also had skin and muscle biopsies at this time and these were interpreted as suggestive of collagen disease.

During his hospital course he developed severe anemia, presumably due to his G.I. bleeding with a possible hemolytic component for which he required frequent transfusions. His reticulocyte counts were in the range of

For the monthly conferences at the Norwalk Hospital, an abstract is prepared by one of the staff physicians. This is mimeographed and distributed to attending and house staff a week before the meeting. Discussion is opened by an attending physician selected in rotation from a panel of participants. The floor is then open to all staff and house physicians, followed by the presentation of pathology. The appended case was presented June 13, 1958. Presiding was Roy N. Barnett, M.D., Chief Pathologist, and Associate Clinical Professor of Pathology, Yale University School of Medicine.

1.3% at this time. In addition, clinically he had symptoms of prostatism with increasing retention of urine for which a suprapubic cystotomy was done followed by the establishment of a drainage tube.

Laboratory

On admission NPN was 28 mgm% and 2 weeks later rose to 72 mgm%. This fell to within normal range in 4 weeks after his admission where it remained for the following 2½ months.

On 12-2-57 his NPN rose to 120 mgm% and remained elevated. The patient was maintained on low dosages of insulin for his diabetes early in his course of treatment, and because his fractional urines were persistently negative, insulin was later discontinued. His serum albumin fell to 1.83 gm but his calcium and inorganic phosphorous were normal.

Liver function test was variable and showed a more or less persistent elevation in his alkaline phosphatase and some BSP retention. Cryoglobulins were negative. A GI series was indeterminate and Bence Jones Proteins were not found at any time.

Skull films were indeterminate as were his chest x-rays and IVP's. A bone marrow aspiration showed a slight increase in plasma cells. This was thought to be a compatible finding seen in malignancy or chronic infection. L. E. preparations were negative. Antistreptolysins were 265 units and Coomb's tests were nega-

tive. Repeated blood culture taken following treatment with penicillin and Chloromycetin were negative.

In spite of vigorous medical treatment and diagnostic studies, there was no specific explanation or diagnosis given to this patient's basic illness while he was hospitalized in the X Hospital, and it was apparent that he was pursuing a relentless "down-hill course."

His discharge diagnosis prior to transfer to the Norwalk Hospital was chronic staphylococcic septicemia which may have precipitated an acute glomerulonephritis, or that he had a chronic glomerulonephritis and/or Kimmelstiel—Wilson's disease.

Because of the previous episode of gastrointestinal bleeding following steroid therapy there was great reluctance to re-establish the steroid medications for treatment aimed at his possible existing collagen disease.

The patient was transferred on 12-18-57 to the Norwalk Hospital for "terminal care." At the time of transfer the patient was on the following medications: Compazine 10 mgms%, 3 times a day; erythromycin, 1 gm a day; Chloromycetin, 1 gm a day, Colace and Maalox.

History

Patient had a negative past history except for his diabetes and previous treatment of a carbuncle on the back. Family history was non-contributory. Patient was known to be a heavy cigar smoker.

Final Admission

Physical findings on his second and final admission showed that the patient was a well developed, poorly nourished, cooperative, conscious white male constantly hiccoughing.

Renal examination revealed no masses either cervical or abdominal. There was no venous congestion of the neck veins.

On examination of the chest the latter was symmetrical, no rales were heard over the pulmonic fields.

Cardiac examination revealed the apex beat to be in the 5th interspace left of midclavi-

ADDITIONAL LABORATORY DATA

BLOOD	12-18-57	12-27	, 1	2-30	12	-31	1-30-58		2-10	
RBC	3.56			2.33	2.	41	2.50)	3.10	
Hemoglobin										
Gm%	10.4	5.4		7.3	6.	9	10.4		9.6	
WBC	8800					1	0,700	3:	3,300	
Polys	66						74	1	70-23	stabs
Lymphocytes	31						19		7	
Monocytes	1						5			
Eosinophils	1						1			
Basophils	1						1.			
URINE	12-18	12-	23							
Appearance	yellow									
Reaction	7.									
Sp. Gravity		1.00	9							
Albumin	2+	4+								
Sugar	neg.	neg								
Acetone	neg.	neg								
RBC/HPF	8-12	10-3	0							
WBC/HPF	2-3	14-1	6							
Casts/LPF	0	0				-				
BLOOD CHEMIS	STRY	12-19	12-23	1-26	1-2	1-4	1-9	1-16	1-24	2-2
BUN		120				44	44	54	52	77
Sugar, Mg 9	6	132					155			
Total Protein						4.9			5.6	
Albumin, Gn						2.3			2.0	
Globulin, Gn	n %					2.6			3.6	
CO2, mEq/L		29	27	21	30	27			27	24
Cl, mEq/L		81	77	76	92	95			95	93
Na, mEq/L		126	120	107	137	132			130	132
K, mEq/L		4.9	4.5	4.3	3.5	4.00			4.4	4.0
Calcium, Mg	%						8.7			
Inorganic P,	Mg%						4.8			
Total Choles	terol						170			
LIVER FUNCTIO	ON TESTS									
S. Bilirubin,	Mg %						0.4			
Cephalin Flo							2+			
Thymol Turb							1.4			
Alk. Phospha							16	K.A.		

cular line. The heart sounds were faint but regular with absence of murmurs or pericardial friction rub. The abdomen was scaphoid in appearance. There was a cystotomy wound and drainage tube seen in place. No masses or tenderness were palpable. There was no flank bulging indicative of fluid.

The extremities revealed a positive Babinski on the left and there was absence of any hyper-reflexia or ankle clonus.

The clinical impression on this admission

was 1) uremia, etiology undetermined, and 2) diabetes mellitus.

Vital signs on admission revealed a temperature of 99, pulse rate 70, respirations 18 and a blood pressure of 150/90.

Course

On the morning of the second hospital day after the patient's admission, he was described as lethargic, singultous (hiccoughing) still persisted. On this day a chest examination was performed which was reported as normal with calcific densities seen in the lower right axilla, interpreted as either localized to the ribs or pulmonary tissue.

A BUN was reported on the third hospital day as 120 mgms% which represented a diminuation in his persistent BUN of 163 which the patient maintained toward the latter part of his X Hospital stay. His lethargy still persisted. A guaiac determination on the fourth hospital day was 4+. This was interpreted as representing a uremic colitis.

On the fifth hospital day the patient revealed a CO₂ of 29 mEq/L, sodium 126, chlorides 81 and potassium of 4.9 mEq/L. Hemoglobin at this time was 10.4 gm, 65%.

He was subsequently placed on Roncovite and his overall physical condition was described as "poor." A urine culture determination reported on the 7th hospital day revealed E. Coli which was sensitive to Chloromycetin and terramycin.

The patient showed the following electrolyte determination: CO₂ 21 mEq/L, chlorides 56, sodium 107, potassium 4.3. An electrolyte study performed on his urine revealed a sodium of 1.6 gm, 24 hours, potassium 1 gm, chlorides 1.9 gm in 24 hours. On the 11th hospital day there was a sharp drop in his hemoglobin to 5.4 gm. His prior hemoglobin (on the 6th hospital day) was 10.4 grams.

Whole blood therapy and cortisone therapy was started.

By the 22nd hospital day there was some improvement in the patient's condition. For the first time he appeared fully alert and coherent, although at this time rales were present in the right lung field. It was the clinical impression that the patient might have a hypostatic pneumonia without evidence of fever. Blood pressure at this time was 120/90. The abdomen was soft and the liver was not palpable, although a 2+ pretibial pitting subcutaneous edema was present. His hemoglobin was now 6.5 gm, RBC 1.057 million. Urinalysis showed 2+ albuminuria. BUN was 44, creatinine 4 and his fasting blood sugar was 122.

On the 25th hospital day the patient was presented at Medical conference and it was felt at that time that the patient should be put on a high protein intake and his antibiotic therapy temporarily discontinued.

The clinical impression was that this patient had Kimmelstiel-Wilson's disease with pyelone-phritis. There was no explanation at this time for his G.I. bleeding. Whole blood therapy continued, including 200cc of packed RBC's which was given on the 29th hospital day. In the evening of the 29th day, the patient suddenly developed signs of respiratory embarrassment and crepitant rales were present throughout both lung fields accompanied by wheezing breath sounds. The patient was fully digitalized; Cedilanid, Mercuhydrin and aminophyllin were given with some appreciable improvement in his condition by 7 P.M.

Heart Sounds

By the 30th hospital day the patient became very restless and respiratory difficulty reoccurred. His blood pressure was 130/80, rales and wheezing were present. The heart sounds at this time now became irregular. EKG showed atrial fibrillation and low voltage. Chemistries showed a BUN of 54, creatinine of 4.4, sugar 125, sodium 128, potassium of 5.2. The patient was given 5% glucose and water.

On the 32nd hospital day there was some improvement in the patient's condition following digitalization.

On the 43rd hospital day the patient's hemogram showed a hemoglobin of 7.3 gm, 46%, RBC 2.8 million and WBC of 13,000. By the 45th hospital day Kussmaul type of respirations were noted. Blood pressure at this time was 145/80. Albuminuria and occult blood in the stools still persisted. His CO₂ was 23 mEq/L, chlorides were 97, sodium 128, potassium 4.2 and BUN was 49 mgms at this time. On the 46th hospital day urine cultures reported proteus; his erythromycin was discontinued and Furadantin, 100 mgms q.i.d., was started.

Over the next 12 days (a total period of

hospitalization: 57 days) the patient's course rapidly deteriorated. For the terminal part of his stay it was felt that the patient actually had the full clinical picture of Kimmelstiel-Wilson's disease with supervening vascular and neurological changes with cardiac and renal failure complicated by pulmonary edema occurring prior to his demise. He expired at 7:03 A.M. on 2-12-58.

Throughout his second Norwalk Hospital admission his temperature averaged between 97 and 99° with a periodic spiking, the maximum of which occurred on February 1, to 103.4 and 101.2 on 2-11.

Discussion

DR. MATTHEW LOCKS, Senior Attending in Medicine: Firstly, patient had an infected lesion of his back resected approximately six months before his admission to X Hospital. It was an infected sebaceous cyst. Shortly thereafter, in the ensuing six months, he had the symptoms suggestive to the compression of the spinal cord; namely, he had progressive weakness of his lower extremities to the point where he could no longer walk; he had episodes of incontinence; and he had discoordination of the fine movements of the hands, localizing to some extent the height of the lesion.

On neurological examination at the hospital, he had corroboration of compression of the spinal cord in that he had hyperactive deep tendon reflexes and a Babinski on the left. A spinal fluid tap showed an elevation of his spinal fluid protein to 173 mg. percent. To my mind, at that point, the diagnosis of a spinal cord syndrome due to a tumor at the level of C6, or C7 or C8, or an epidural inflammatory lesion, either tuberculous or some other inflammatory agent, was present.

Myelography

According to the summary, he had two attempts at myelography at that time. The first, apparently was unsatisfactory although a suspicion of a lesion at C7 was seen, and several days later a repeat myelography indicated "the presence of an osteophyte." We don't

have those films available and there is some question of whether this thing was done, I learned. But I will have to follow the protocol as to these examinations having been done and some defect in that area seen containing calcium and at the level where this man had some localizing neurological symptoms.

Following these two procedures, a dramatic change in this man's course occurred. Firstly, he became febrile; secondly, he became increasingly weak, and thirdly, he developed hematuria.

One other thing I did not mention is that this man had incontinence which so frequently goes with a spinal cord syndrome.

Apparently he must have had enlargement of the prostate by rectal examination even though it is not described, because they felt to some extent his symptoms were due to prostatism. At this point in his history, because fever, apparently blood cultures were done and a staphylococcal septicemia first disclosed. He received many antibiotics. He also received steroid therapy at this point and he apparently improved clinically. His blood cultures after this time were apparently negative, but he experienced an episode of gastrointestinal bleeding, presumably due to steroids, so that this form of medication was withheld.

In the protocol it is stated, that there was a suspicion that this man had some form of collagen disease, as demonstrated on skin and muscle biopsies. Apparently there is no description about the findings of these biopsy specimens and I would assume that the steroid therapy was given because of the suspicion of collagen disease.

In reviewing his history up until now, the thing that impressed me most was that this man had an infected lesion of his back resected. Secondly, he developed a focus in his cervical spinal cord with compression; thirdly, after several manipulations of his spinal canal with myelography, he developed an acute febrile illness which is characterized, at least objectively, with a staphylococcal septicemia.

He has no findings to suggest that he has an acute staphylococcal bacterial endocarditis.

Apparently he has no heart murmurs and, as you well know, this type of disease is rather progressive because, the staphylococcus being an ulcerative type of organism, it would cause marked changes in whatever valves would be involved. And we have no evidence, at any point, that he had changes in his valvular sounds. I would assume that this man had, from the summary to date, a staphylococcal osteomyelitis of his cervical vertebrae with compression; that this was a chronic indolent localized lesion, and that following the changes in dynamics of his fluids and the myelography that was done, he developed a suppurative phlebitis in that area, and following that a dissemination of staphylococci.

Anemia

Somewhere in the summary it is mentioned that he developed an acute inflammatory lesion of his left humerus with abscess formation and this could also well be a suppurative focus in the humerus. Now from that point on this man deteriorated a great deal. He had a suprapubic cystotomy done because of his urinary difficulties. He developed a host of urinary organisms complicating his urinary function, for which he received many antibiotics as well. And I would like to discuss, rather than review the rest of the case, the cardinal problems that were presented in this man.

First of all, he developed a profound anemia. This appears in several places in his course. The nature of the anemia was such that it could have come from several sources. He had gastrointestinal bleeding not only during the initial illness at X Hospital, following the introduction of steroids, but he continued to bleed from his gastrointestinal tract throughout the remainder of his life, as evidenced by positive guaiac on his stools.

At no point in the investigation can we localize a lesion of the gastrointestinal tract; he had an upper G.I. Series with visualization of his small bowel and also part of the ascending colon without demonstrable abnormality. Secondly, this man had a sepsis. He had a chronic infection, I feel, over a long period of

time. This in itself can contribute in no small measure to an anemia. Thirdly, he had periods of rather severe uremia, his urea nitrogen being elevated over a period of several weeks initially and then falling to note quite normal limits and then a recurrence of the rise.

It is true that during periods of uremia there can be a rather severe anemia present. This has been corroborated very neatly in doing bilateral nephrectomies in rabbits. Very shortly after the nephrectomies a profound anemia ensues without any external or internal hemorrhage and, characteristically, there is intense erythro-phagocytosis demonstrated in the tissues of the autopsied animal.

Against any other sources of anemia such as blood dyscrasias or aplastic anemia due to drugs such as Chloromycetin, of which this man had considerable amounts, myeloma, which to my mind was not substantiated in the protocol, is an absence of the corroborative diagnostic studies or indications during this man's study.

Renal Lesion

The second thing that appeared a problem was the nature of the renal lesion in this case. Firstly, he had, to my mind, a cord bladder and prostatic hypertrophy which comprised his renal function. He had a suprapubic cystotomy with the coincidence of exogenous infections in the urinary tract. He never had any anuria, to my mind, so that I could not conceive that he had any involvement of the major vascular channels leading to both kidneys and most important, to me, is that this man had a reversible renal lesion.

Inasmuch as he was in such intense uremia over a period of weeks, with a urea nitrogen as high as 163, and then reverted to the point where his urea fell to 44, whatever lesion he had had to be reversible.

The only reversible lesions I could think of were an inflammatory lesion, a bilateral involvement of both kidneys with pyelonephritis, or multiple abscesses which, under the influence of all of these antibiotics, healed or at least partly healed.

It is of interest that during the course of his stay here he had a salt losing syndrome in that if you review his electrolytes, he had very low sodium, very low chlorides, no acidosis and his potassium was fairly normal. And it is of interest that shortly after corticosteroid therapy was instituted in this hospital not only was that all corrected, but he had an increase in his chlorides beyond normal. A salt losing lesion is seen in pyelonephritis in certain instances and it would fit the clinical picture.

Though he had albuminuria, he never had any demonstrable casts. I am thinking in terms of a chronic glomerulonephritis or a Kimmelstiel-Wilson syndrome where these findings are usually so common. And finally, he had a normal intravenous pyelogram as was demonstrated at X Hospital, ruling out polycystic kidney disease or other structural disorders that we can rule out with an intravenous pyelogram. I thought briefly about amyloid disease of the kidneys and discarded it as a possibility, first thinking about it because of the presence of chronic infection but discarding it because of the reversibility of the renal lesion. To my mind amyloid deposits in the kidney do not disappear.

Bleeding

The next problem was the gastrointestinal bleeding. This man had steroids which could certainly cause ulceration and bleeding. He was in uremia certain periods of time and so frequently one can get a uremic gastritis which can bleed severely or a uremic colitis. The absence of findings on x-ray, to my mind, rules out the neoplasm, although the lower colon was never visualized and we may have some coincident finding to explain his continued blood loss.

The possibility of inflammatory lesions in the bowel I stipulated; the possibility of staphylococcic abscesses; the possibility of mycotic aneurysm with bleeding can be entertained. I mentioned the staphylococcus septicemia, the most likely cause being the osteomyolitic focus. The possibility of endocarditis is hard to entertain. His demise is characterized by repeated respiratory embarrassment very strongly suggestive of multiple pulmonary embolism. He developed atrial fibrillation and heart failure. My feeling is that his death was due to repeated episodes of pulmonary emboli in a man who has been debilitated with chronic illness and bed ridden for a period of ten months. One question I raise in my mind is whether this man really had diabetes. It is of interest that in spite of all his illness, his blood sugars remained within normal limits and to my mind if he did have diabetes it was of quite a mild nature.

Summary

In summary I would say that my diagnosis would be a staphylococcic septicemia based on an osteomyelitis of a cervical vertebra, with compression of the cervical spinal cord. Secondly, multiple lesions of both kidneys due to inflammatory processes either due to the staphylococcic abscesses or due to ascending infection from the urinary bladder, malnutrition, with hypochromic anemia and his final demise due to these pulmonary emboli.

DR. GIARDINA: X-rays from X Hospital consist of examinations of the skull, the chest, left shoulder, the G.I. series and an IVP. I won't show you the G.I. series which appears to be entirely normal. The IVP is normal also. The kidneys showed up unusually well. The ureters are well demonstrated with no evidence of any abnormality of the urinary tract. The film confirms the fact that he had a myelogram because there is residual pantopaque in his lumbar subarachnoid spaces.

QUESTION: May I ask the date on the IVP? ANSWER: September '57.

Films

The skull films were entirely normal. The cervical myelograms, two of them as has already been stated, are not available because they were not included in the films given to us. I have a series of chest x-rays taken at X Hospital, the first being August. Views show entirely normal lungs. The heart shows

a little prominence of the left ventricle, but it is certainly not very striking.

A repeat film, taken September, is AP film. The heart would naturally look a little larger because of technique, but I think there is essentially no change. There is an incidental finding of two little calcifications here at the periphery of the right lung. These may be old healed tuberculomas or that may be actually outside the lung. It is hard to say; it is so close to the periphery.

Another film taken in October '57 still shows no change in the heart or lungs.

Now, the left shoulder was examined in September and did not appear to be remarkable except for a small soft disc of calcification which is peritendinitis or calcified bursitis. However, on the subsequent films beginning in October, at the time he had this staphylococcal septicemia, you begin to appreciate an area of early rarefaction immediately above the greater tuberosity of the humerus, right in this area. It was at this time that the patient clinically had an abscess drained-and I must confess that with that sort of a history this is certainly compatible with an osteomyelitis of the humerus. Now as time went on this did not get worse but there was some improvement in the appearance of his defect. You can see cortex on the film in December where you could not back in September; so I agree that the changes in the left humerus are compatible with an osteomyelitis of a very low grade.

The last set of films on this patient are the ones taken here at the Norwalk Hospital the day after admission. A chest film showed essentially the same findings as his previous films did at X Hospital, nothing abnormal demonstrated in either lung.

The last film we had is a portable film on the tenth of February of this year, 12 days before he died and now there is evidence of pulmonary edema.

The lung bases are probably clouded due to some effusion. The heart is difficult to appraise because of the density in the lung bases, but there is probably little bit of enlargement compared to the previous examination. So our

feeling is that it is heart failure now with pulmonary edema. Whether part of this is due to renal disease, which is possible, I can't say.

DR. LOCKS: There is one other thought that I had about this man with a large prostate and the presence of what I felt was an osteomyelitis in the cervical vertebra. There is a very interesting finding with patients who have disease of the prostate with paradoxical metastases, either tumorous or infected, producing changes high up in the cerebral spinal channel because of the connection of the vascular pathways of the plexus in the pelvis with the blood pathways of the spinal cord. One of the things that entered my mind with this man is whether he had some prostatic disease, either inflammatory or neoplastic, which caused this lesion to appear in the superior portion of the spinal cord.

Diabetes

DR. HOWARD ENTE, Associate Attending in Medicine: I'd like to raise the question whether the diabetes is not really a very significant part of this. I'm impressed by the fact that in diabetics the occurrence of urinary tract infection is very common and also, and I think Dr. Margold will probably agree, they represent very stubborn problems. They sometimes are very persistent and chronic with either infection in the bladder or pyelonephritis, as Dr. Locks has mentioned. The other thing, too, is that in diabetics occasionally one sees what has been called terminal papillitis or hemorrhagic papillitis, which seems to be a specific hemorrhagic disease of the kidneys in relation to diabetes. I am also impressed by the fact that occasionally patients with diabetes can get neuropathy and I wonder whether a transverse myelitis or some process occurring in the nature of a neuropathy in relation to the cervical spinal cord here might not be a diabetic neuropathy. And so I just raise the question of whether the diabetes is perhaps really the underlying cause with superimposed difficult renal infection, perhaps papillitis, and also the question of whether there is not spinal cord involvement secondary to the diabetes.

Infection

DR. ALLEN MARGOLD, Attending in Urological Surgery: I would just like to confine my comments to the protocol in reference to the urinary tract. I see nothing in here, there is no comment as to a physical examination or a rectal examination that will tell whether this man has a large prostate. I will definitely agree that he has some neurogenic symptoms and it is conceivable with the statement in here that this man had progressive and increased retention of urine; that somebody was passing catheters on this fellow and with the repeated passing of a catheter, repeated infection is very apt to occur.

This man was 53; he was in the early prostatic age, but not the real prostatic age. But he did have neurogenic disease. He had weakness, he had paralysis of his lower extremities, and a neurogenic bladder. Neurogenic bladder is the type of bladder that is very prone to infection, particularly where someone is investigating to see how much the retention is increasing. Or maybe he just had overflow, and if he had overflow, with a lot of retention, he certainly was a great candidate for an infection in his bladder and an ascending infection. I certainly agree with Dr. Locks his upper tract is probably based on a pyelonephritis with repeated attacks of infection and probably multiple abscesses in the tip, and I think that is why you had the increase in his nitrogenous retention and then with antibiotics it probably improved.

Bowel

DR. ZEPH LANE, Assistant Attending in Surgery: I would also like to carry on with Dr. Margold's remarks. If a rectal had not been done and this patient had precipitate drop in his hemoglobin and red count upon several occasions and definitely has gastrointestinal bleeding, without proof of varices, cirrhosis or an ulcer, either in stomach or duodenum, then we must suspect something in his bowel: diverticulitis, carcinoma and perhaps even a carcinoma which has extended to the bladder walls, such as carcinoma of the rectum, which could

produce many of the distal obstructive symptoms of the bladder neck.

DR. LOCKS: One comment about the consideration of the spinal cord lesion. I, too, thought of a neuropathy, but the sequence of events in this protocol was that this man was in the hyperactive state so far as his deep tendon reflexes were concerned. When first examined, and later on when admitted to this hospital, he already had complete flaccid paralysis and so frequently the course of events is that in spinal fluid compression: first compression, then thrombosis and edema of the spinal cord itself.

DR. L. HERBERT SKLUTH, Attending in Cardiology: The only comment I'd like to make is I think that this man presented the terminal picture of a uremia as the terminal stage of a Kimmelstiel-Wilson process in a diabetic. But I'd like to know the length of time it would take for an amyloid condition to produce it in the presence of suppuration. I imagine it would be much longer than this man's history; but I was wondering if a chronic infection and an acute amyloid condition could produce a thing like pus in the kidneys.

Collagen

Dr. Roy Barnett, Attending in Pathology: I will open the discussion now to Dr. Clark.

DR. EUGENE CLARK, Assistant Professor in Medicine, NYU-Bellevue: I would not hazard a diagnosis to cover this entire complex situation. I don't know of any single pathological entity that can encompass all the varied manifestations of this case. So much of pertinence has already been said that I would simply add some things that occur to me which may or may not be relevant.

I don't like to ignore findings of pathologists and there were biopsies done in this case interpreted as suggestive of collagen disease. I recognize it is very difficult to explain the entire picture on the basis of a collagen disease as lupus erythematosus, but in view of the biopsy finding I would not like to reject it categorically or forthwith.

First, it is well known that fluctuating or

reversible uremia is a part of lupus erythematosus. The degree of renal insufficiency may vary considerably from day to day, or from week to week in this condition. Other than the renal insufficiency in favor of lupus erythematosus perhaps is the obscurity of the entire clinical picture. We do, to be sure, have other things which go with lupus erythematosus; namely, anemia and effusions into some of the serious sacs—the pleural sacs.

The patient with lupus erythematosus is susceptible to infections with pyogenic cocci and that might be an explanation of the length between the staphylococcal septicemia and a collagen disease in this case, if one had to grope for such a length. Actually, it is unnecessary since there was a ruptured sebaceous cyst with chronic inflammation which might very well serve as the portal of entry for the staphylococcus.

If these biopsy lesions are to be ignored or disproved as representing those of collagen disease, what then would they represent? In that connection I would merely raise the possibility that perhaps this patient did receive considerable penicillin when he underwent surgery for the infected sebaceous cyst.

Penicillin

There have been vascular lesions simulating lupus erythematosus seen in those who have received penicillin, quite similar to those seen in serum sickness.

If this should not prove to be lupus erythematosus, I would raise the possibility that the biopsy findings might have been the aftermath of a penicillin reaction.

In that connection, too, we have seen neurological pictures with penicillin reaction very comparable to that seen with serum sickness. I don't think that it is pertinent in this case to dwell upon that since the neurological picture in this patient seems to be more than of an obstructive lesion than the type of Guillain-Barré syndrome that is seen with serum sickness or penicillin reaction.

Dr. Marvin Chernow, Associate Pathologist, illustrated his remarks with Kodachromes.

Dr. Chernow: At autopsy of the general body organs a bilateral pleural effusion of 2000cc's of yellow watery fluid was found in the right hemithorax and 800cc's of similar fluid was present in the left hemithorax.

There was considerable compression at electasis of the lungs due to the increased fluid content within the thorax. The mediastinum had a globular configuration. The pericardial sac was a dull yellow color. On exposing the pericardial cavity, a hemorrhagic-purulent exudate, partially organized, was present. The liquid component totaled 90cc's.

Postmortem culture of the pericardial contents yielded hemolytic staphylococcus aureus: coagulase positive. The heart weighed 430 grams. The valves were unremarkable. There was no evidence of valvular vegetations present. The myocardium throughout was flabby in consistency and hyperemic in appearance. The peritoneal cavity contained 700cc's of yellow watery fluid. And hepatosplenomegaly was present.

The spleen weighed 670 grams. On sectioning the splenic parenchyma had a semi-liquid consistency. Grossly the pancreas and kidneys were unremarkable. The urinary bladder was a contracted, thick-walled organ. There was elevation of the floor of the bladder with a ball valve obstruction of the internal vesicular orifice due to marked lateral and median lobe hypertrophy of the prostate. The latter weighed 40 grams.

Exploration of the gastrointestinal tract failed to reveal any recent or healed areas of ulceration in the upper G.I. tract. However, in the sigmoid colon the lumen contained black fecal matter which on removal revealed deposition of fibrin on the mucosal surface.

Microscopic Findings

Sections of pericardium (Fig. 1) showed an organized inflammatory exudate comprising the deeper layers involving the epicardium while more superficially the reaction was acute in type.

Brown-Brenn stains (Fig. 2) showed aggregates of gram positive cocci in the superficial

layers of the pericardium. Within the myocardium there were aggregates of polymorphonuclear leukocytes seen independent of the vessels.

The lungs (Fig. 3) showed passive congestive changes and sections of the tracheobron-chial lymph nodes revealed complete calcification of the nodes.

Sections of spleen revealed focal deposition of hemosiderin and an increased number of polymorphonuclear leukocytes within the sinusoids.

The pancreas revealed intact and rather well preserved acinar and islet structures although foci of squamous metaplasia of the duct epithelium was seen in one area. The liver showed severe passive congestive changes. The kidneys showed scattered foci of interstitial inflammatory infiltrates composed of plasma cells and lymphocytes (Fig. 4).

The nephron units were well preserved. There were no stigmata of diabetic glomerular sclerosis seen. The larger renal vessels showed arteriosclerotic changes. Sections of large bowel revealed superficial necrosis of the mucosa with fibrin and polymorphonuclear leukocytic exudates.

Grossly the most striking finding within the brain was severe arteriosclerotic involvement of the basilar artery and cerebral vessels. On histological examination the basilar artery contained a large subintimal atheromatous plaque with marked encroachment into the lumen of the vessel (Fig. 5).

Sections of cerebrum, cerebellum, pons and medulla revealed small areas of "paling" and acellular foci with and without glial cell reaction. Representative sections of peripheral nerves taken from the lumbar plexus as well as random sampling of skeletal muscle and skin failed to reveal any evidence indicative of that broad group of diseases termed "collagen disease."

In summary this patient died in congestive heart failure secondary to a fibrino-purulent pericarditis and myocarditis following a staphylococcal septicemia. As for his early neurological findings, I think this is compatible with



FIGURE I



FIGURE 2

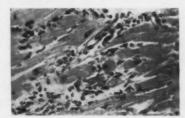


FIGURE 3

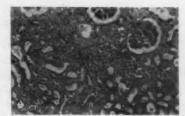


FIGURE 4



FIGURE 5

his severe cerebral arteriosclerosis and septic state. His urinary retention was due to a severe median bar obstruction of the internal urethral orifice necessitating a cystotomy.

DR. BARNETT: In summary, this patient had three almost independent disorders. First, and the apparent cause of the presenting CNS symptoms, is the severe arteriosclerosis of cerebral vessels, doubtless related to his diabetes. The fluctuating nature of these manifestations is much more characteristic of arteriosclerotic narrowing than of any pyogenic lesion causing intrinsic or extrinsic spinal cord pressure.

Second was the Staphylococcus aureus septicemia, apparently initiated by diagnostic manipulations. This type of infection has become the bugaboo of the modern hospital. The

infection localized in the pericardium and to a lesser degree in the myocardium and I feel this is the direct cause of death via heart failure.

Third was the pyelonephritis resulting from benign overgrowth of the prostate. This was under good control following cystotomy and was not directly concerned with his death.

The occurrence of multiple major diseases in older persons is actually the rule rather than the exception. Particularly in this instance the arteriosclerosis and the sepsis are both common complications of diabetes and are not really unrelated.

I have reviewed the skin and muscle slides from which the diagnosis of "collagen disease" was made and believe these were non-specific degenerative changes, common in wasting diseases.





"OFF THE RECORD . . . "

Share a light moment or two with readers who have contributed stories of humorous or unusual happenings in their practice. PAGES 25a and 29a.



NORWALK HOSPITAL

Norwalk Hospital's new and expanded educational program shows how one community hospital of 300 beds improved its teaching program.

Founded as a six-bed dispensary in a rented house in 1893, the Norwalk Hospital has been located in three different sections of Norwalk, Connecticut, in its 65-year history. Six years after it was established, the first hospital building—a 26-bed unit containing one operating room—was constructed. The present site was purchased in 1914, and since 1918, there have been three wings added to keep abreast of the population boom in the hospital's service area.

Today, Norwalk Hospital has a capacity of 305 beds and 40 bassinets, and its services embrace all major specialties.

In 1956, the Medical Education Committee of the Norwalk Hospital adopted a new program based on the premise that "proficiency in teaching is a special skill, not necessarily related to staff position."

In developing this program for house staff education at the Norwalk Hospital, one of the first questions the committee studied was this: Why do community hospitals have such difficulty in filling their quota of interns through the Matching Plan, while university hospitals readily meet their constantly increasing requirements?

Outstanding

Listing the "advantages to interning in a community hospital," Norwalk's Medical Education Committee concluded that young physicians "can acquire life-long ties, a place to practice, a niche in the area where they will settle, and a familiarity with the type of practice in which they will later engage."

Further, the committee felt that as generalists and specialists have joined the migration to the suburbs as a place to live and raise their families, attending staffs of community hospitals today often are composed of physicians "as outstanding as those found teaching in medical schools—in fact, often the same men." Nor is there any dearth of "clinical material" in these nonuniversity hospitals, reasoned Norwalk's medical staff.

"Yet, with all the advantages of a place to practice, excellent attendings and abundant pa-

NORWALK HOSPITAL

DIRECTORS OF EDUCATION AND SERVICES	DIVISION	OTHER TEACHING AFFILIATIONS
Allen M. Margold	Medical Education and Urology	
Daniel H. Adler	OB-GYN	Clinical Instructor OB-GYN, Albert Einstein School of Medicine
Roy N. Barnett	Laboratories	Assoc. Clinical Prof. Pathology, Yale University School of Medicine
Harold Genvert	Surgery	Ass't. Prof. Clinical Surgery, Cornell Medical School
David D. Giardina	Radiology	Instructor in Radiology, Yale University School of Medicine
Neil F. Lebhar	Pediatrics	Ass't. Prof. Pediatrics, N.Y.UBellevue Medical Center
Ignatius J. Vetter	Medicine	

tients, the prospective intern still gives first thought to the university hospital for his internship."

Teaching

In an effort to reverse this trend, and make at least one community hospital more attractive, the one factor which Norwalk's administration and staff felt could be controlled was the level of clinical teaching.

"Too often," said one senior staff man, "senior attendings achieve their positions solely by seniority and clinical skills, but lack the talent for teaching, which is a corollary of their position."

After study, Norwalk went to work. A "Clinical Faculty" was selected to be responsible for all house staff teaching. Senior members include a Director of Medical Education, and an educational director for each of the six major divisions. All are diplomates of their specialty boards and were qualified by the staff and by the Director of Graduate Medical Education, Yale University School of Medicine, who served as a consultant.

The entire staff of more than 200 physicians was polled and from those indicating strong interest in teaching house staff members, the "Clinical Faculty" selected the best qualified

by reason of knowledge, teaching ability and willingness to utilize their private patients for teaching.

The completed "faculty" consisted of a "dean," six "professors," and "instructors." New "instructors" are added as the "professors" recommend.

Further strengthening of the Clinical Faculty plan was then accomplished by affiliation with the Regional Hospital Plan of New York. This program, directed by Dr. Clarence de la Chapelle, under the overall direction of New York University Dean Donal Sheehan, is specifically directed at raising the level of teaching in community hospitals.

Lectures

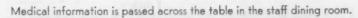
The Medical Consultants have not only added actual medical information, stimulating to both house staff and attending physicians, but have also contributed in the realm of teaching methodology. This has been done both directly to faculty members and through reports to Dr. de la Chapelle, later reviewed with Norwalk's Medical Education Director. In another aspect of this affiliation, Norwalk Hospital house staff members attend lectures and rounds at New York University-Bellevue Medical Center. Organization and coordination of



Newly-admitted patient gets thorough examination.



Staff doctors review films at x-ray conference.





OUTPATIENT CLINICS

Tumor	Every other week
Cardiac	Weekly
Medical	Weekly
Pediatric	Weekly
Surgical	Weekly
Mental Health	Daily
Well-Baby	Every other week
Ob-Gyn	Weekly
Dental	Twice weekly
Dermatology	Monthly
Chest Diseases	Monthly
Neurosurgery	Twice monthly
Orthopedic	Weekly

HOSPITAL CENSUS

Ward Patient Days	11,600
Emergency Room Visits	
Outpatient Visits*	34,440
Total Deliveries	2,127
Surgical Operations	5,187
Laboratory Procedures	143,186
Autopsy Rate	50%
Autopsy Number	215
X-Ray Examinations	. 20,231
X-Ray Treatments	2,594
Cystoscopic Examinations	622

^{*} Private and Clinic

these back-and-forth visits, as well as the general program, are carried out by the Medical Education Director.

Clinics

Naturally, teaching includes many day-to-day duties not formalized on the published schedule. There is the primary responsibility under supervision for the care of service patients, comprising about 12 percent of all patient days. There is the secondary responsibility for all private patients, daily ward rounds with attending physicians, shared responsibility for the 12,000 Emergency Room patients and the 34,000 outpatient visits at 132 clinics. Attendance is also encouraged at the monthly Journal Club and the bi-weekly, audio-visual program.

The resident and intern programs of the Norwalk Hospital are approved by the Council on Medical Education and Hospitals of the American Medical Association. The one-year rotating internship includes three months in surgery, three months in medicine, two months in obstetrics-gynecology, two months in pediatrics and anesthesia, and two months in the emergency room and x-ray. There is a four-year residency in pathology, and one-year residencies in medicine, surgery and obstetrics.

Hospital

The Norwalk Hospital is located high on a hill overlooking a large area of Fairfield County, Connecticut, and the waters of Long Island Sound. New York City is an hour away and New Haven, home of the Yale Medical School. is half an hour distant.

One of the fastest growing regions in the United States, as evidenced by the construction of 20 new schools during the past 10 years, the Norwalk area population consists of skilled workers and a large segment of New York City commuters. The hospital serves as the medical center for nine surrounding communities, whose citizens contribute considerable moral and financial support to maintain up-to-date facilities. (For example, it is the first hospital in Connecticut to have an artificial kidney.)

Norwalk Hospital employs more than 500 full- and part-time personnel, including a house staff of 13 interns and 10 residents, and 100 graduate nurses.

Library

The medical library contains hundreds of current textbooks and subscriptions to more than 75 journals. The hospital conducts an accredited school of nursing with a capacity for 150 student nurses, and an approved school for medical technologists. During the fiscal year ending September 1957, more than 14,000 inpatients were treated for a total of nearly 100,000 patient days.

Scholarship

Recognizing that for many years to come American hospitals will supplement staff requirements with foreign medical graduates, to attract the best of these physicians, Norwalk Hospital maintains a scholarship program with a number of leading European medical schools. Under an arrangement agreed upon by the schools, several English-speaking scholars are selected each year by the deans of those schools to spend a year of postgraduate work at Norwalk Hospital, learning American concepts of medical service. The scholars are furnished transportation and are given appointments as interns. By this means, an exchange of medical concepts is made possible between interns

from American schools and those from foreign schools.

Opportunities for learning reach out beyond the walls of the hospital. The hospital maintains a special fund to enable residents and interns to attend conventions at nearby cities. An opportunity is also provided the house staff to attend meetings and clinics at Yale University, NYU-Bellevue Medical Center, The Academy of Medicine in New York City, and at other medical centers in nearby New York.



EMERGENCY GASTRECTOMY FOR HAEMORRHAGE FROM THE UPPER GI TRACT

"A series of 692 patients, bleeding from peptic ulcer, has been divided into three groups in order to compare the results of: (a) purely conservative treatment of hemorrhage with (b) conservative treatment combined with emergency gastrectomy in carefully selected patients.

The method of selection of patients for emergency gastrectomy was as follows:

- (a) On admission, each patient was classified as 'good risk' or 'poor risk,' according to his age and the severity of his hemorrhage. Good-risk patients were those whose hemorrhage was insufficient to produce shock and those under age 46 years whose hemorrhage was sufficient to produce shock. Poor-risk patients were those over the age of 45 years with hemorrhage of sufficient severity to produce shock.
- (b) The cause of the bleeding was diagnosed as soon as possible after admission with the help of 'no touch' roent-genography and the bromsulphthalein dye test of liver function.
 - (c) Good-risk patients were treated conservatively.
- (d) Poor-risk patients were treated conservatively unless the bleeding either continued or recurred after once stopping. In either event they were treated by emergency gastrectomy, provided a duodenal or gastric ulcer had been demonstrated on roentgenography.

The death rate was reduced from 11.7% for patients treated conservatively to 4.7% for patients treated both conservatively and by emergency gastrectomy in selected patients."

J. R. BINGHAM

Canad. Med. Assoc. J. (1959), Vol. 80, No. 9, P. 707

How
to
Remember
Your
Patients'
Name

JESSE BREMNER

The number of patients a physician knows by name, his ability to identify them in any background, has a material bearing on how many patients he retains.

Unfortunately, office routine too often discourages a physician really identifying patients as individuals. Identification in the office is made too easy. The result: outside the practice too often patients' faces can't be matched with names.

Patients of a forgetful physician can be downright inconsiderate. They have an annoying way of turning up outside the office, without benefit of appointment book or office records. If a physician can't readily identify patients in such circumstances, it can generate considerable ill will and resentment.

In the physician-patient relationship, the physician is easily remembered by the patient anywhere. The patient is at an advantage. He has only one physician. The physician has many patients. This may explain to a physician his difficulty. It's not an excuse calculated to pacify patients who've not been recognized as such.

In this limited space, the author does not intend to explore all of the methods and devices for sharpening one's memory. There are numerous excellent books on memory training available in public libraries. The purpose of this article is only to emphasize the importance of physicians sharpening recall in respect to the identification of patients.

However, for the purpose of opening up the subject, consider one device which has been found effective by many cursed with poor memories for names and faces. This simply means using a person's name as frequently as possible, short of redundancy, during the initial meeting and conversation.

When a physician has a new patient he has occasion to use the patient's name several times. Too often, he doesn't, unfortunately. He has a similar opportunity to do so in telephone conversations. It may be advisable to scribble the patient's name on a pad as soon as phone

identification is made. He can then refer to this memo during the conversation. Repetitiousness in employing the patient's name, even if not facing him, helps to implant that name in the physician's memory.

This device should be used when a patient is met outside the office. If the name can be recalled, it should be used both on meeting and departure. This strengthens the physician's future recall. That he was able to make the correct identification doesn't mean he can do so the next time, hence the importance of using the name.

If a physician can't recall the name of a patient he's met, he should try to remedy the defect. If in a group, he may ask an acquaintance to make the identification. The very act of going to this trouble will help in future identification.

In such a situation, too, a physician should use the patient's name as soon as he's learned it.

In anticipation of identifying by name a patient in a group, a physician may do some discreet listening. Identification may be revealed by another person. Here, too, the positive effort of seeking the identification will help implant the patient's name in the memory for future use.

If a physician would truly cultivate his practice, he can't do better than cultivate his patients and their good will. The pleasantest word that can fall on anyone's ears is the name by which his identity is unmistakably set apart from all others. To grant patients this innocent pleasure, a physician must sharpen his ability to recognize them in all environments and wherever they are met.



RAPID IMMUNIZATION WITH POLIOMYELITIS VACCINE

"A single inoculation of 10 ml. of poliomyelitis vaccine resulted in early appearance of neutralizing antibody when compared to an initial dose of 1 ml. Previous studies of the effect of 1 ml. of recent vaccine did not demonstrate protection or antibody formation in a majority of nonimmune persons. The implications of these data are discussed for rapid immunization before or during the epidemic season."

SAMUEL BARON, EUGENE V. BARNETT, BEATRICE L. BURCH,

JOHN M. LYNCH, WILFRED R. EHRMANTRAUT

The New Eng. J. Med. (1959), Vol. 260, No. 19, P. 969

A Guide to the Low-Priced Foreign Cars



As a special service to its readers, MEDICAL TIMES will periodically publish articles from leading national magazines, articles dealing with the many interests—music, hi-fi, automobiles, photography, etc.—of the family physician. This service is made possible through special arrangement with the publishers. This article is reprinted from the February 1960 issue of Changing Times, The Kiplinger Magazine.

You've seen the U.S. compact cars. They're smaller than their overgrown brothers, more economical to operate and cost less to buy. Now, if you're looking for still more economy, you will turn to the smaller and lighter-weight imported cars that have the below-\$2000 market virtually to themselves.

A considerable number of people in this country have already been sold on the unique features of the small foreign cars. In 1955 the imported-car share of the U.S. auto market

make & series	price port of entry
GOGGOMOBIL T-400	\$ 995
BMW ISETTA 300	1,048
VESPA 400	1,080
FIAT 500	1,098
RENAULT 4CV	1,345
GOGGOMOBIL T-700	1,395
LLOYD 600	1,395
BMW 600	1,398
FIAT 600	1,398
NSU PRINZ	1,398
MORRIS 1000 STANDARD	1,495
VOLKSWAGEN	1,565
SKODA S-440	1,575
FORD ANGLIA	1,583
DATSUN	1,616
RENAULT DAUPHINE	1,645
FORD PREFECT	1,661
METROPOLITAN	1,673
WARTBURG STANDARD	1,688
PANHARD GRAND LUX	1,697
SIMCA ARONDE DELUXE	1,698
TRIUMPH	1,699
HILLMAN MINX SPECIAL	1,735
FIAT 1100	1,743
AUSTIN A-40	1,795
SAAB 93-F	1,895
GOLIATH 1100	1,949
VAUXHALL VICTOR	1,957
OPEL REKORD	1,958
DKW	1,995
FIAT 1200	

was less than 1 percent. Last year more than 600,000 imported cars were sold in the U.S., about 10 percent of total car sales. Over half of the foreign cars sold were in the \$1,500 to \$2,000 price range.

Now, apparently, all the talk about the compactness and economy of the new U. S. cars is causing even more people to look closely at the imports. *Automotive News* reports: "The new compact cars have been welcomed just about as warmly by imported-car dealers as

by the public," and suggests that if sales of imported cars have been hurt by the new compacts, "everybody should hurt so good."

Why did more than 85 percent of foreigncar owners in a survey last year say that their next car would be another imported model? Here are their principal reasons, in order of importance.

• Economy of Operation. You don't begin to appreciate the potential saving in owning a small imported car until you figure the total

no. of cylinders	harsepow	shipping er weight	wheel base	overall length	overall width	no. of doors	seat front	width rear	headr	rear	no. of U.S. dealers	
2	22	915 lbs.	70.8"	114.2"	50.4"	2	47.0"		34.5"	_	175	
1	13	757	58.0	89.9	54.3	1	43.5		36.0	_	476	
2	20	800	66.7	112.2	50.0	2	48.0		38.0		189	
2	21	1,069	72.4	117.0	52.0	2	45.5		34.6	_	426	
4	28	1,322	82.8	142.3	56.3	4	46.0	40.0"	37.5	33.0"	800	
2	34	1,411	78.7	135.3	58.0	2	49.0	51.2	38.6	37.8	175	
2	29.5	1,240	78.8	132.1	55.8	2	44.0	46.0	35.5	34.0	423	
2	26	1,135	66.9	114.5	55.1	2	40.5	46.5	37.0	35.5	476	
4	28.5	1,290	78.8	130.5	54.3	2	44.5	43.5	36.2	33.0	426	
2	26	1,080	78.8	122.8	56.0	2	37.0	48.0	36.0	33.0	281	
4	37	1,736	86.0	148.0	61.0	2	36.0	41.0	36.0	35.0	670	
4.	36	1,609	94.5	160.6	60.6	2	46.0	51.6	38.6	32.7	410	
4	53	1,984	94.5	160.0	63.0	2	46.0	45.6	37.6	36.2	125	
4	41	1,580	90.5	153.5	57.3	2	50.5	43.0	38.1	37.0	668	
4	37	2,035	87.4	152.7	57.7	4.	43.0	47.0	37.3	35.0	287	
4	32	1,397	89.0	155.0	60.0	4	51.0	50.0	37.5	35.5	800	
4	61	1,683	87.0	149.8	60.8	4	50.5	48.5	38.3	36.8	668	
4	55	1,890	85.0	149.5	61.5	2	49.8	-	35.8	-	1,671	
3	38	2,120	96.5	167.0	62.0	4	51.0	51.5	37.5	37.0	412	
5	50	1,764	101.0	180.0	63.0	4	58.0	56.0	35.0	33.0	44	
4	50	1,925	96.3	162.2	62.6	4	50.8	49.8	34.2	34.0	724	
4	40	1,680	84.0	145.0	58.0	4	42.0	39.0	38.0	35.0	700	
4	56.5	2,122	96.0	162.0	60.8	4	47.0	52.5	38.5	36.8	804	
4	48	1,940	92.1	154.3	57.4	4	46.1	49.0	36.0	34.0	426	
4	37	1,596	83.5	72.5	59.4	2	39.0	37.0	36.5	34.5	670	
3	38	1,775	98.0	158.0	62.0	2	38.0	44.5	38.0	35.0	133	
4	46	1,896	89.4	158.2	64.2	2	53.0	43.0	36.5	34.5	371	
4	55	2,125	98.0	167.8	.62.5	4	51.6	52.0	35.5	35.3	2,734	
4	57	1,922	100.0	174.5	63.6	2	52.8	53.1	36.0	34.8	3,215	
3	50	2,005	92.0	166.0	66.0	2	51.6	54.0	37.6	35.2	150	
4	63	2,050	92.0	154.3	57.4	4	47.5	49.0	34.5	33.5	426	

(which average \$50 to the Midwest, \$100 to the West Coast); dealer handling and preparation charges in most cases (about \$50); state and local taxes; optional equipment (although heaters are included as standard equipment in most imports).

THE FOREIGN STATION WAGONS

Here are the foreign-built station wagons currently selling for less than \$2,300, the average list price of the least-expensive U.S.-built wagons. For an explanation of the price column, see the auto chart.

make & series	price port of entry	no. of cylinders	horse- power	shipping weight	wheel base	overall length	overall width
LLOYD 600	\$1,545	2	29.5	1,240 lbs.	78.8"	132.1"	55.8"
GOGGOMOBIL ROUSTABOUT	1,595	2	33	1,488	78.0	142.0	58.0
HILLMAN HUSKY	1,639	4	51	2,020	86.0	152.0	60.5
FORD ESCORT	1,689	4	36	1,773	87.0	140.4	60.8
FIAT 600 MULTIPLA	1,658	4	24.5	1,603	78.8	140.8	57.0
MORRIS 1000 STANDARD	1,798	4	37	1,764	86.0	148.0	61.0
DATSUN	1,818	4	48	2,268	87.4	159.8	57.7
WARTBURG STANDARD	1,898	3	38	2,290	96.5	169.0	62.0
TRIUMPH	1,899	4	40	1,780	84.0	144.0	58.0
SIMCA ARONDE (CHATELAINE)	1,963	4	50	2,041	96.3	158.1	62.8
FIAT 1100	1,998	4	48	1,985	92.1	149.1	57.4
GOLIATH 1100	2,095	4	46	2,068	98.3	158.3	64.2
TEMPO VIKING RAPID	2,171	4	32	4,053	106.3	172.0	67.5
TAUNUS COMBI-WAGON STANDARD	2,237	4	67	2,291	102.5	172.2	65.8
VOLKSWAGEN	2,245	4	36	2,447	94.5	168.5	68.9
VAUXHALL VICTOR	2,262	4	55	2,255	98.0	167.8	62.5
OPEL CARAVAN	2,293	4	57	2,077	100.0	174.5	63.6
HILLMAN MINX	2,299	4	56.5	2,265	96.0	162.0	60.8

annual costs, as in the example in the box on the next page.

- Ease of Handling and Parking. A small foreign car that is a ton lighter and 4 feet shorter than a typical American model offers remarkable agility and convenience of handling for short-run neighborhood shopping trips, rush-hour traffic and parking.
- Low Annual Depreciation. Except with an off-beat model that declines in value abnormally fast, your dollar depreciation on a \$2,000 car will invariably be less than that on a more expensive model. (See the box again.)
- Quality of Workmanship. Although quality is not uniformly high among the imports, many of the foreign cars show evidence of attention to details of construction, trim and furnishing that is impressive in any price range.
- Low Original Price. If you pay cash, your original investment in many of the small foreign

cars can be as little as half the amount of money you would tie up in a \$3,000 U.S. sedan. If you finance it, down payment, instalments and charges are lower.

In addition to all this, many of the foreign cars in the \$1,000 to \$2,000 price range offer structural and mechanical features that aren't duplicated in many U. S. cars costing twice as much. For example: unit frame and body construction; independent suspension on all four wheels; fully synchromesh transmissions (no clashing of gears in manual shifting, even from second to first gear); front-wheel drive and efficient aluminum engines.

One word of caution, however. Service on foreign makes has improved generally over the past few years, but it's still haphazard for some makes with limited dealer facilities. To be safe, check with foreign-car owners in your area as to their experience.

	4	carge	length	unobstr	ructed rear o	pening
no. of doors	no. of seats	tailgate closed	tailgate open	height	maximum width	minimum width
2	2	52.0"	52.0"	29.0"	44.0"	28.0"
3	2	54.0	54.0	38.0	52.0	52.0
2	2	50.3	50.3	35.0	52.0	37.5
2	2	67.0	67.0	27.1	43.3	35.8
4	2	50.0	50.0		_	
2	2	50.0	50.0	29.0	41.0	39.0
2	2	65.0	88.0	35.0	38.0	36.5
2	2	64.0	64.0	33.5	37.0	35.0
4	2	57.0	57.0	29.0	37.0	37.0
2	2	65.0	88.2	36.5	52.0	38.5
4	2	55.5	55.5	31.0	32.1	32.1
2	2	66.0	66.0	30.0	35.0	33.0
3	2	96.3	96.3	44.0	42.8	42.8
2	2	63.0	79.1	25.6	39.8	37.5
2	3	32.7	32.7	28.7	35.4	35.4
4	2	63.8	63.8	26.6	48.1	36.7
2	2	68.9	68.9	30.3	32.1	32.1
4	2	59.5	59.5	33.0	48.0	48.0

Miles-Per-Gallon

The results of the November 1959 Mobil Mileage Rally for small cars will give you an idea of the *potential and relative* gas mileage of many of the imported cars. The rally was run over a course of 345.6 miles at an average speed of 38.89 mph.

But don't expect to match these records, or even all the claims of manufacturers, under normal driving conditions. More realistic guides to gas mileage are the actual performance figures used in calculating the operating costs in the box at the left for the Volkswagen (32 mpg) and the Renault Dauphine (34 mpg).

Even though you don't break any records, you can still save as much as \$100 a year on gasoline by driving one of the small foreign cars instead of a typical six- or eight-cylinder American model.

Here are the figures posted by professional

HOW MUCH ECONOMY?

Here's an illustration of the total effect on your pocketbook of cheaper depreciation, operation and maintenance.

Suppose that three years ago you had had your choice of buying either of the two most popular foreign cars (Volkswagen or Renault), or the least expensive of the Big Three's six-cylinder, four-door sedan models, equipped with standard transmission. What would your total costs have been as of today for each?

Depreciation figures are based on actual NADA "Official Used Car Guide" prices, but the depreciation of the Renault is more typical of foreign cars than that of the Volkswagen, which is still in short supply in this country.

Other fixed and operating expenses are based on costs for a typical Midwestern area. They were compiled by Runzheimer and Co., of Chicago, Ill., automobile operating-cost analysts for major fleet and leasing operations.

ANNUAL COST	U.S.	VOLES- WAGEN	
Average depreciation	\$453	\$190	\$328
Insurance	146	122	122
License fees	12	8	. 8
Gas, oil, mainte-			
nance, repairs & tires	377	213	207
Total	\$988	\$533	\$665

The Volkswagen's annual cost per mile, on a 10,000-mile/year basis, is a little more than half that of the U.S. six-cylinder model; the Renault's, two-thirds.

If you had driven the Volkswagen for the past three years, your total saving over the costs of the "low-priced" U.S. model would have been \$1,365; with the Renault, \$969.

drivers in the 1959 Mobil run. Remember again, take them with a grain of salt.

Fiat 500-55.3 mpg	Triumph-38.61 mpg
NSU Prinz-48.67	Citroën 2CV-38.51
Renault Dauphine-46.25	Fiat 1100-38.43
Volkswagen-43.67	Datsun-37.37
Renault 4CV-42.72	Simca Aronde-37.25
Austin A-40-42.24	Fiat 1200-36.99
Morris 1000-41.34	DKW-36.69
Austin 4-55-39 21	Onel-36.42

Small, Smaller, Smallest

There are some excellent transportation values among the imports. Your choice—taste and prejudice aside—will depend on the values you attach to economy of operation, balanced against your particular comfort, passenger-capacity and transportation needs. There are three categories in terms of size and passenger capacity in the \$1,000 to \$2,000 price range.

\$1,000 to \$1,400. This is the minimum transportation class. The one- to four-cylinder engines are efficient and economical, but don't expect too much in the way of performance and comfort. Most models are adequate only for two passengers, although you may be able to squeeze one or two small children into the rear seating space. These cars will do for intown commuting and shopping trips—not for highway travel.

\$1,400 to **\$1,700**. The four-passenger Renault Dauphine, Volkswagen and English Ford (the most popular cars of this group) of-

fer the basic size, power and performance for almost any type of moderate driving.

\$1,700 to \$2,000. In this group are the cars, such as the Austin, Hillman, Opel and Vauxhall (as well as some of the more expensive models in the \$1,400 to \$1,700 category), that are most comparable for the U. S. compacts in capacity, comfort and performance.

As for station wagons, most of the imports listed do not have the interior capacity, comfort and sedanlike qualities of the American species. But many of the van-type foreign wagons (Taunus and Volkswagen, for example) offer utility and versatility of interior space—for hauling children, furniture, camping equipment—that are unequaled in any U. S. car.

The charts on the cars and the station wagons answer the questions: "How compact can you get?" and "At what price?"

The 24 makes included in the auto chart offer about 90 different models. (U.S. manufacturers make only six models selling for less than \$2,000.) Included are the best-selling imports of 1959: Volkswagen, Renault, English Ford, Opel, Fiat, Hillman, Triumph and Vauxhall-in that order. Not included are the "sports" models (Berkeley and Austin-Healey Sprite, for example) that sell for less than \$2,000, and the numerous imports that sell for \$2,000 and up (up to \$24,650 for the most expensive Rolls-Royce). If you are interested in the foreign cars that are most comparable in price to the U.S. compacts, take a look at the Ford Consul, Zephyr or Zodiac, Borgward; Peugeot; Singer Gazelle or Volvo.



GUIDE for our readers

The conventions of the presentation of advertising material on pharmaceuticals are related to certain ethical and practical considerations. This guide should be of help to all our readers in an understanding of the advertising material contained herein. Unless it is stated to the contrary:

> All illustrations of physicians and patients are dramatizations utilizing models and not specific physicians or actual patients. The ethical and other considerations for this are obvious.

> Illustrative material such as dummy prescription blanks, hospital charts, calling cards, memos, etc., are presented as dramatizations.

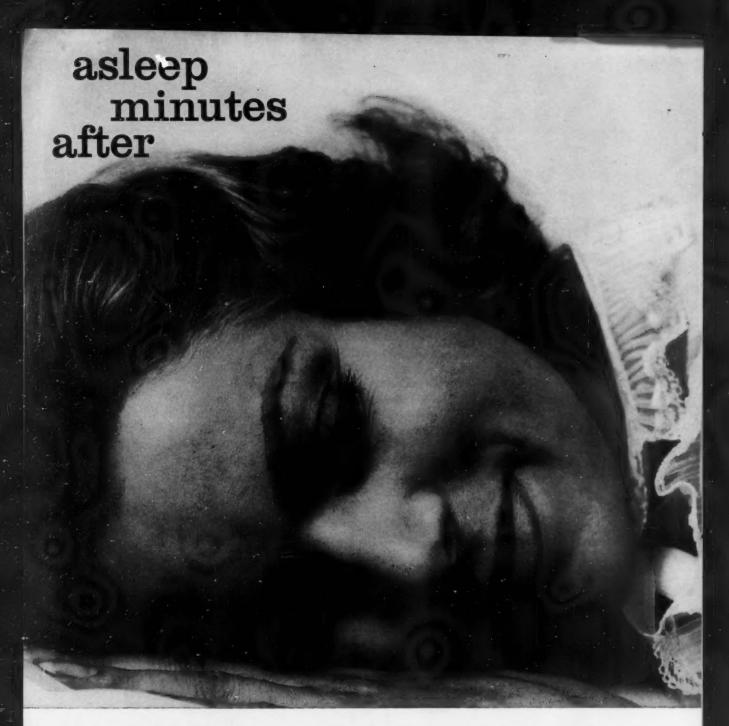
> Composite case histories, drawings and/or photomicrographs are often presented to convey typical clinical indications but unless stated to the contrary are constructed as illustrative cases or situations.

> Physical limitations of space in journal advertising make the presentation of all relevant data impractical; therefore, it is suggested that for suitable background on dosage indications and contraindications the standard package insert or more extensive background data be consulted.

The acceptance of material for advertising is based upon several criteria; for example, in respect to safety, all new drugs are required to correspond with the accepted Food and Drug application.

It is suggested that any difference of opinion of individual physicians with any advertisements be called to the attention of the editor, with a duplicate copy of the letter to the pharmaceutical house whose advertisement is the subject of the letter.

THE PUBLISHERS



This is the promise of Noludar 300...a night of deep, refreshing sleep without risk of habituation or toxicity...6 to 8 hours of undisturbed rest...an easy awakening in the morning, free of fogginess or barbiturate "hangover." Try Noludar 300 for your next patient with a sleep problem. One capsule at bedtime. Chances are she'll tell you

"I slept like a log"

NOLUDAR 300

CHESCHIO

ROCHE LABORATORIES • Division of Hoffmann-La Roche Inc • Nutley 10, New Jersey



FOR THE SUCCESSFUL PHYSICIAN

Prepared especially for Medical Times by C. Norman Stabler, market analyst of the New York Herald Tribune.

A DIMINISHING MINORITY

The life insurance industry is a giant among the giants of our financial social organizations. It grows bigger each year as more and more of us become insurance conscious and contribute our dollars to its stature.

Legal reserve life insurance companies in the United States, as distinct from fraternal and assessment organizations, have assets of \$113,600,000,000 and the insurance in force on their books is at the astronomical figure of \$534,000,000,000, which works out at an average of \$11,500 per insurable family.

From these figures one might assume that just about everyone in the country is insured, to some extent. That isn't so. Excluded are certain individuals known to the companies as "the uninsurables." They are members of that category of doubtful distinction because of physical impairments or because of hazards inherent in their callings, either of which, the actuaries figured might interfere with their longevity.

In certain cases, individuals, while classed as insurable, have been required by life insurance companies to pay higher rates, per \$1,000, than is charged for what is termed "standard risks."

Joseph C. Sibigtroth, second vice president and actuary of the New York Life Insurance Co., tells us that this small group, the uninsurables and those subjected to higher premiums, is a diminishing minority. It is diminishing because of progress made by the medical profession and by painstaking work on the part of actuaries in calculating the degree of risk involved in cases of physical ailments and hazardous undertakings.

Among those who, in the past few decades, have gained admittance to life insurability are: an estimated 2,000,000 diabetics in the United States; a growing number of the 14,000,000 who suffer from the more serious cardiovascular diseases, including most of the juvenile cases of congenital heart trouble; and most of the 4,000,000 a year mothers-to-be.

Those who were insurable twenty years ago at a higher premium rate, and who today are classified as standard, include nearly all of our 300,000 policemen and firemen; most of the 1,000,000 railroad workers; and the country's 62,000 elevator operators, among many others.

Among those who, 20 years ago, paid a high extra premium that has since been reduced are the nation's 360,000 coal miners, for whom insurance protection cost has been reduced on the average from an added premium charge of \$10 per \$1,000 twenty years ago to around \$5 per \$1,000 today.

Dramatic medical advances, better standards of living, improved public health, sanitation, and work safety programs have directly caused this extension of insurability and reduction of insurance costs to special groups, Mr. Sibigtroth says. But important, too, has been the careful study by the life insurance industry of the effect on mortality of these improvements and the constant revision of risk standards in line with these results.

While the writing of life insurance with extra premiums began in America at an earlier date, it was not until 68 years ago that work started to put it on a sound actuarial basis, Mr.



Sibigtroth points out. In 1892, Dr. Oscar H. Rogers, then an Assistant Medical Director of the New York Life Insurance got the idea.

For some time the company had been vainly seeking data on the mortality of persons suffering from certain diseases in the hope it could issue special higher premium policies to them. He then requested and received authorization to do a 3-year investigation into the health or mortality of applicants the company had rejected over the past 20 years.

Eventually, the medical histories of 20,000 who had been previously rejected were established. In collaboration with an actuary of the New York Life, Dr. Arthur Hunter, a system was devised for the rating of certain medical impairments, and New York Life shortly afterward issued its first policy at higher than standdard rates.

The system devised by Rogers and Hunter is still used by companies in computing premium rates on medical impairments. It is called the numerical rating system and is based upon percentages of extra mortality over and above normal or standard mortality.

For computing the additional premium to be paid for occupational hazards, another system—based upon extra deaths per thousand—is used. The difference in systems is due to the

differing nature of the two risks. Most occupational hazards are accidents, for which the chance of occurrence tends to be unrelated to the person's age. On the other hand, the mortality hazard for most medical impairments increases with age.

For occupational hazards a flat extra premium that does not vary by age is generally used. A railroad track walker pays an annual extra premium of around \$3 per \$1,000 of insurance; a night watchman, about \$2; a sand-blaster, about \$5; a lumberman, about \$3.

In the area of industrial hazards, particularly factory jobs, the more effective safety precautions now taken by employers makes new insurance without extra premium generally available. Better lighting, safety guards, improved sanitation, plant medical facilities and other safety improvements have resulted in a marked reduction in occupational mortality.

Probably one of the most dramatic instances of upgrading in the occupational field is that which the companies did for regularly scheduled airline pilots in the United States and Canada. Twenty years ago they paid an extra premium of \$20 for any insurance protection while working on their job. Today they may



buy insurance protection at the same rate paid by a clerk who sits all day at a desk—at the basic standard premium rate.

Experienced private pilots, flying privately owned planes for a moderate number of hours each year, can now qualify for standard insurance; 25 years ago they were charged a \$15 extra premium. Civilian student pilots are now charged an extra premium of about \$4; 10 years ago they could not generally qualify for life insurance protection while flying.

90% of anxious, agitated and apathetic office patients calmed without drowsiness and with normal drive restored...

on one or two 0.25 mg. tablets b.i.d.:

This is the pattern of performance for

PERMITIL

Fluphenazine dihydrochloride

- In 608 patients with anxiety and anxiety-induced fatigue or depression, Permitil, administered in small daily doses of 0.5 mg. to 1 mg., produced significant improvement in 90%.*
- Permitil is virtually free from side effects at recommended dosage levels.
- Patients become calm without being drowsy and normal drive is restored.
- Onset of action is rapid; effect is prolonged.
- Permitil does not potentiate barbiturates or non-barbiturate sedatives and can be used with impunity with such agents.

How to Prescribe PERMITIL: The lowest dose of PERMITIL that will produce the desired clinical effect should be used. The recommended dose for most adults is one 0.25 mg. tablet twice a day (taken morning and afternoon). Increase to two 0.25 mg. tablets twice a day if required. Total daily dosage in excess of 1 mg. should be employed only in patients with relatively severe symptoms which are uncontrolled at lower dosage. In such patients, the total daily dose may be increased to a maximum of 2 mg., given in divided amounts. Complete information concerning the use of PERMITIL is available on request.

Supplied: Tablets, 0.25 mg., bottles of 50 and 500.

*Recent compilation of case reports received by the Medical Department, White Laboratories, Inc.

White

WHITE LABORATORIES, INC., Kenilworth, New Jersey

FOR THAT EXTRA MEASURE OF RELIEF IN SEVERELY PAINFUL RHEUMATIC AND TRAUMATIC DISORDERS

NEW

The addition of the unrivaled analgesic potency of codeine phosphate to PARAFON provides the muscle relaxant-analgesic effect necessary in severely painful musculoskeletal disorders. In these conditions, PARAFON with Codeine assures long-lasting relief of pain, stiffness and disability on low, practical dosage. Side effects are rare and seldom severe enough to warrant discontinuation of therapy.

dosage: One to two tablets 3 or 4 times a day.

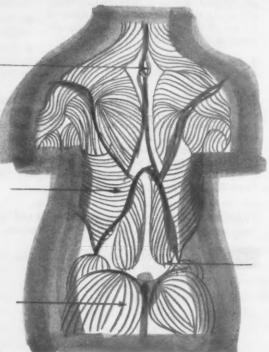
supplied: White, compressed tablets, imprinted McNEIL, bottles of 24. Each tablet contains: PARAFLEX® Chlorzoxazone* 125 mg., Tylenol® Acetaminophen 300 mg., and codeine phosphate 15 mg.

*U. S. Patent Pending

Narcotic for which oral B is permitted



McNeil Laboratories, Inc · Philadelphia 32, Pa.



All life insurance companies base their premium rate—standard or substandard—upon the occupational rating or medical impairment rating of the applicant at the time he buys his insurance.

In the case of a shoe salesman who received his policy while engaged in that occupation and who later became a stock car racer (\$10 extra premium per \$1,000), the company is powerless to increase the premium rate because of change to more hazardous work.

On the other hand, a stock car racer changing occupation to that of a shoe salesman can receive from the company the lower standard premium rate provided he is a normal risk in other aspects.

The same applies to a person who recovers from a medical impairment for which he has been paying an extra premium. While under many conditions a company will later lower a life insurance premium rate, never can it raise the premium rate of an existing policy while it remains in full force.

While the benefits of standard life insurance

have now become available to many formerly substandard and un-insurable classes among the population, the cost of life insurance protection today is still about the same as it was two decades ago, Mr. Sibigtroth says. This rare stability is unusual since during this period we have seen sharp price increases in nearly all other commodities and services.

As medicine made its recent dramatic conquests of infectious diseases, and the public health and safety have improved, so has the mortality experience of the people — these developments are reflected in the cost of insurance. Yet for the past two years, he notes that the change in mortality experience of the American people—after showing a long range trend of improving mortality for more than a half century—seems to have slowed down, at least temporarily.

Many in the business expect it to remain on a plateau until medical science makes one of the two next great break-throughs so eagerly awaited by all—the conquering of cancer and heart disease.

HIGH COSTS OF WELFARE

The hazards of our vast public welfare programs are outlined in an analyses issued by the National Association of Manufacturers called "Medical Care for the Aged," in which this organization of business men attacks the Forand bill which would amend the Social Security Act to provide hospitalization, nursing home and surgical care for people who are receiving, or are eligible for, Old Age and Survivors benefits.

The bill would increase social security taxes by one-half of one per cent, and the cost of benefits, the NAM believes, might now reach \$2,000,000,000 a year and \$7,500,000,000 by 1980. Advocates of the bill, it charges, are seriously exaggerating the health care needs of people over 65.

The bill, it asserts, is intended as an entering wedge for a complete cradle-to-the-grave health insurance plan. But the association pamphlet is aimed mainly at disproving statements by advocates of the bill that "most persons over 65 still have too little money to meet the rising cost of medical care."

The NAM admitted there are many older people in this predicament. Although accurate statistics are difficult to get, estimates by the Health Information Foundation and The Federal Department of Health, Education and Welfare indicate that from 39 to 43 per cent of people over 65 had some health insurance in 1957 and the percentage has increased since then.

In addition, the NAM said, about 18 per cent of people over 65 are on some kind of relief and get full public medical care. Others are entitled to full medical care from the Veterans' Administration or other government or private pensioner services. In addition, 32 per cent of couples over 65, have an income of \$4,000 or more, indicating some ability to meet medical costs.

The NAM said that Secretary Arthur Flemming of the Federal Welfare Department

Why Clinical Judgment Often Dictates Altafur for Peroral, Systemic Therapy of Pyodermas

Gratifying Therapeutic Response ALTAFUR was found "highly satisfactory in most of the primary and secondary bacterial dermatoses treated to date," including "pyodermas. caused by antibiotic resistant strains of staphylococci." In a nationwide survey2 there were 94% satisfactory results (cured or improved) among 159 patients treated with ALTAFUR for pyodermas.

Virtually Uniform in vitro Susceptibility of Staphylococcus aureus

99.5% of isolates (214 of 215) from patients with staphylococcal infections—including many antibiotic-resistant strains-proved sensitive in vitro to ALTAFUR in tests conducted across the nation.3 99.7% of staphylococcal isolates (334 of 335) at a large general hospital-including many antibiotic-resistant strains—proved sensitive in vitro to ALTAFUR.4

Wide, Stable Antimicrobial Spectrum

"Because of its relationship to previously developed nitrofurans, it is anticipated that [ALTAFUR] will retain its original spectrum after longstanding

clinical usage." Development of significant bacterial resistance to ALTAFUR has not been encountered to date.6

Minimal Side Effects

Side effects are easily avoided or minimized by these simple precautions: 1) alcohol should not be ingested in any form, medicinal or beverage, during ALTAFUR therapy and for one week thereafter 2) each dose should be taken with or just after meals, and with food or milk at bedtime (to reduce the likelihood of occasional nausea and emesis).

1. Weiner, A. L.: Paper presented at the Conference on Recent Advances in the Treatment of Chronic Derma. necent advances in the treatment of Chionic Scenarios, toses, University of Cincinnati (Ohio), Nov. 5, 1959. 2. Compiled by the Medical Department, Eaton Laboratories, from case histories received, 3. Christenson, P. J., and Tracy, C. H.: Current Therapeutic Research 2:22, 1960. 4. Glas, W. W., and Britt, E. M.: Proceedings of the Detroit Symposium on Antibacterial Therapy, Michigan and Wayne County Academies of General Practice, Detroit, Sept. 12, 1959, p. 14. 5. Leming, B. H., Jr.: Ibid., p. 22. 6. Investigators' reports to the Medical Department. ment, Eaton Laboratories.

Tablets of 250 mg. (adult) and 50 mg. (pediatric) bottles of 20 and 100

Altafur NITROFURANS ... a unique class of antimicrobials EATON LABORATORIES, NORWICH, NEW YORK

Prichard & Smith Furunculosis, severe COMPAND P. SHIPMER. HD. Richard & Smith ADDRESS 121 North Main St DATE 3/25/60 250 mg. Tab. Altafur Disp. no. XX Sig: I tab gid & food or milk has testified that private hospital insurance will reach 56 per cent of the aged population by 1965 and at least 68 per cent by 1970.

In opposing the Forand bill, the NAM said the liabilities of Federal Social Security System already exceed the general national debt by \$50,000,000,000, and that any unwise extension of social security could lead to grave disaster.

From the beginning of 1937 to January 1, 1960, it figures that \$69,800,000,000 was collected from employers, employee and self-employed of the country. The Old Age Survivors and Disability Insurance Fund earned \$5,900,000,000 in interest, and about \$54,000,000,000 was paid out.

"Today," it adds, "6 percent of taxable payrolls goes to support the social security system. During 1960, contributions and expenditures each are expected to exceed \$11,000,000,000. Under the present schedule of progressive tax increases, and assuming that no further increases in the tax rate are enacted, by 1969 the government will be taking 9 per cent of taxable rolls for social security.

"Some idea of the weight of this additional load on the economy may be had from the fact that every increase of one-half of 1 per cent in social security taxes means than an

additional \$1 billion must be paid."

The NAM said Federal policies which impede or inhibit individual or business incentive, or which add to the inflationary pressures upon the economy, must be avoided so that private enterprise can expand and provide all with opportunities to build their own personal economic security.

"Unwise federal policies could be equally destructive of the social security system," the association said. "It is quite possible that the system could become so costly, and the taxes so burdensome as a result of continued liberalization, that the voters, at some future time, would refuse to continue to shoulder the burden.

"The Forand proposals represent another stimulus to the ever-increasing dependency of the individual on the federal government and to the ever increasing control of individual disposable income by Washington," the NAM said. "Voluntary health insurance provides the answer, and within a relatively few years all of our senior citizens who want or need such protection will have it. There is no justification for imposing on the entire nation a compulsory program that is unnecessary and hazardous."

PENNSY TO MADISON TO INTERNATIONAL MINING

International Mining Corporation has announced the proposed acquisition of the Canton Company of Baltimore. International has agreed to purchase the controlling interest from Madison Fund and others consisting of 92 percent of the outstanding stock at \$25 per share. The offer will be made to all other stockholders.

The entire transaction is subject to approval of governmental authorities. Canton, headed by Herbert J. Watt, president, will be operated as a wholly owned subsidiary of International Mining Corporation without change in existing management.

Fourth largest terminal on the Atlantic Seaboard, the Canton Company of Baltimore was incorporated in Maryland in 1829. Both directly and through its subsidiaries, Canton Railroad Company and the Cottman Company, Canton operates a completely integrated water front terminal in the Port of Baltimore for the unloading, storage and delivery of iron ore, other bulk cargoes and general cargo. The company owns six piers, four warehouses, short haul railroad facilities, and several hundred acres of waterfront property and other real estate in and around the City of Baltimore.

Edward A. Merkle, Madison Fund President, stated that the "sale of Canton represents the disposition of the last Madison Fund special situation and controlled affiliate which had their origin in Madison's original connection with the Pennsylvania Railroad many years ago. This transaction, for all practical purposes, will complete our transition to full diversification in securities with an established market."



REALMS OF THERAPY BEST ATTAINED WITH



Special Advantages

IN CHILDREN &

unusually safe; tasty syrup, 10 mg. tablet

IN ELDERLY PATIENTS

well tolerated by debilitated patients

Supportive Clinical Observation

. Atarax appeared to reduce anxiety and restlessness, improve sleep pat-terns and make the child more amenable to the development of new patterns of behavior...." Freedman, A. M.: Pediat. Clin. North America 5:573 (Aug.) 1958.

"... seems to be the agent of choice in patients suffering from removal disorientation, confusion, conversion hysteria and other psychoneurotic conditions occurring in old age." Smigel, J. O., et al.: J. Am. Geriatrics Soc. 7:61 (Jan.) 1959.

"All [asthmatic] patients reported "All [asthmatic] patients reported greater calmness and were able to rest and sleep better ... and led a more normal life... .. In chronic and acute urticaria, however, hydroxyzine was effective as the sole medicament." Santos, I. M., and Unger, L.: Presented at 14th Annual Congress, American College of Allergists, Atlantic City, New Jersey, April 23-25, 1958. 15 ALLERGIC PATIENTS

useful adjunctive therapy for asthma and dermatosis: particularly effective in urticaria

HYPEREMOTIVE ADULTS

does not impair mental acuity

"... especially well-suited for ambulatory neurotics who must work, drive a car, or operate machinery." Ayd, F. J., Jr.: New York J. Med. 57:1742 (May 15) 1957.

New York 17, N. Y. Division, Chas. Pfizer & Co., Inc. Science for the World's Well-Being

World-wide record of effectiveness-over 200 laboraworld-water record of effectiveness—over 200 labora-tory and clinical papers from 14 countries. Widest latitude of safety and flexibility—no serious adverse clinical reaction ever documented. Chemically distinct among tranquilizers—not a pheno-thiazine or a meprobamate. Added frontiers of usefulness—antihistaminic; mildly

antiarrhythmic; does not stimulate gastric secretion.

...and for additional evidence

Bayart, J.: Acta paediat. belg. 10:164, 1956. Ayd, F. J., Jr.: California Med. 87:75 (Aug.) 1957. Nathan, L. A., and Andelman, M. B.: Illinois M. J. 112:171 (Oct.) 1957.

Settel, E.: Am. Pract. & Digest Treat. 8:1584 (Oct.) 1957. Negri, F.: Minerva med. 48:607 (Feb. 21) 1957. Shalowitz, M.: Geri-atrics 11:312 (July) 1956.

Eisenberg, B. C.: J.A.M.A. 169:14 (Jan. 3) 1959. Coirault, R., et al.: Presse méd. 64:2239 (Dec. 26) 1956. Robinson, H. M., Jr., et al.: South. M. J. 50:1282 (Oct.) 1957.

Garber, R. C., Jr.: J. Florida M. A. 45:549 (Nov.) 1958. Menger, H. C.: New York J. Med. 58:1684 (May 15) 1958. Farah, L.: Internat. Rec. Med. 169:379 (June) 1956.

SUPPLIED: Tablets, 10 mg., 25 mg., 100 mg.; bottles of 100. Syrup (10 mg. per tsp.), plnt bottles. Parenteral Solution: 25 mg./cc. in 10 cc. multiple-dose vials; 50 mg./cc. in 2 cc. ampules.



THE FAVORIE FIFTY

	RAN	IK BY D	OLLAR	VALUE		/. cos.	_9	% OUTSTANDING STOCK HELD BY INV. COS.	
	12/31/49	12/31/58	6/30/6	12/31/59	S VALUE (MILLIONS)	NO. OF INV.	NUMBER OF SHARES HELD	% OUTSTA	
INTERNAT'L BUSINESS MACHINES CORP. UNITED STATES STEEL CORPORATION	25	1 2	1 2	1 2	357 242	87 87	814,500 2,455,300	4.46 4.55	
TEXACO, INC.	5	3	3	3	236	93	2,755,000	4.55	
DU PONT (E. I.) DE NEMOURS & COMPANY	7	14	6	4	172	94	653,100	1.43	
GOODYEAR TIRE & RUBBER COMPANY	-	5	4	5	170	47	3,692,800	11.14	
INTERNATIONAL PAPER COMPANY	3	12	8	6	160	53	1,181,600	8.87	
GENERAL ELECTRIC COMPANY	12	16	12	7	160	83	1,611,300	1.83	
STANDARD OIL COMPANY (NEW JERSEY)	9	4	5	8	159	107	3,201,600	1.49	
GENERAL MOTORS CORPORATION	6	13	7	9	158	94	2,907,700	1.03	
FORD MOTOR COMPANY	_	-	14	10	152	62	1,674,400	3.06	
ARMCO STEEL CORPORATION	_	17	13	11	127	57	1,649,600	11.15	
ROYAL DUTCH PETROLEUM COMPANY	-	8	15	12	127	80	2,822,600	3.90	
REPUBLIC STEEL CORPORATION	_	11	9	13	124	61	1,631,000	10.40	
INTERNAT'L NICKEL CO. OF CANADA, LTD.	34	27	18	14	122	69	1,110,000	7.61	
BETHLEHEM STEEL CORPORATION	-	10	10	15	119	61	2,190,200	4.82	
GULF OIL CORPORATION	1	6	11	16	119	65	3,277,400	3.22	
FIRESTONE TIRE & RUBBER COMPANY		18	19	17	107	32	774,400	8.81	
AMERICAN TELEPHONE & TELEGRAPH CO.	-	7	16	18	107	67	1,339,900	0.63	
WESTINGHOUSE ELECTRIC CORPORATION	15	Contraction	24	19	105	68	964,500	5.57	
MINNESOTA MINING & MANUFACTURING	_	28	23	20	105	41	595,200	3.50	
UNION CARBIDE CORPORATION	19	24	20	21	105	70	712,000	2.37	
STANDARD OIL COMPANY OF CALIFORNIA	24	9	17	22	103	63	2,049,100	3.24	
CONTINENTAL OIL COMPANY	4	19	21	23	101	57	1,813,600	8.59	
EASTMAN KODAK COMPANY	40	26	28	24	100	41	929,800	2.42	
RADIO CORPORATION OF AMERICA	-	44	30	25	90	59	1,304,400	9.11	

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Investors like to know what the big investment companies are doing, both the open-end trusts, usually referred to as mutual funds, and the closed-end type. They have professional managements that select the shares they think will do the best for their own stockholders, and they are in daily touch with the market.

Consequently much interest attaches to their buying and selling. The firm of Vickers Associates, Inc., Huntington, New York, four times a year, recapitulates their market transactions and comes up with a copyrighted feature it calls "The Favorite Fifty."

This means the fifty stocks most preferred by the investment company industry, ranked by dollar value. The survey covers more than 300 investment companies, including 71 closed-end concerns and more than 200 mutual funds. Together they have assets exceeding \$20,000,000,000. About 23 per cent of these assets are in the favorite fifty stocks.

The most recent report covers the situation

	RANK BY DOLLAR VALUE					. cos.	.9	% OUTSTANDING STOCK HELD BY INV. COS.
	12/31/49	12/31/50	85/00/8	12/31/59	\$ VALUE (MILLIONS)	NO. OF INV. COS. HOLDING	NUMBER OF SHARES HELD	% OUTSTA
REYNOLDS METALS COMPANY	_	33	22	26	89	39	1,264,900	7.50
SOUTHERN COMPANY (THE)	47	35	26	27	87	49	2,178,800	9.73
ALLIED CHEMICAL CORPORATION	42	47	27	28	85	45	1,467,500	7.38
MERCK & CO.	_	20	25	29	85	51	1,050,800	9.93
TEXAS UTILITIES COMPANY		23	29	30	83	46	1,096,900	8.74
CENTRAL AND SOUTHWEST CORPORATION	26	31	38	31	82	47	2,507,600	11.79
FLORIDA POWER & LIGHT COMPANY (FLA.)	-	29	31	32	81	43	1,466,500	11.11
MONSANTO CHEMICAL COMPANY	41	-	32	33	79	57	1,430,000	6.21
DOW CHEMICAL CO.	35	-	47	34	77	53	784,000	2.91
GENERAL TELEPHONE & ELECTRONICS	_		40	35	77	45	911,800	4.18
SHELL OIL COMPANY	_	25	35	36	75	38	1,757,600	2.90
AMERADA PETROLEUM CORPORATION	2	15	34	37	65	35	860,900	13.64
*ROHM & HAAS COMPANY		-		38	64	23	88,100	7.89
ALUMINUM, LTD.	-	39	39	39	64	60	1,893,600	6.25
*GILLETTE COMPANY (THE)	_	-	-	40	64	28	1,000,400	10.75
*AMERICAN ELECTRIC POWER COMPANY	20	50	_	41	63	46	1,295,500	6.06
*COLUMBIA BROADCASTING SYSTEM, INC.	_		-	42	63	47	1,430,900	17.09
STANDARD OIL COMPANY (INDIANA)	23	34	41	43	63	50	1,421,200	3.97
YOUNGSTOWN SHEET & TUBE COMPANY	44	42	33	44	62	34	466,400	13.42
PARKE, DAVIS & CO.	-	36	48	45	62	32	1,350,100	9.11
LOUISIANA LAND & EXPLORATION	28	40	44	46	62	34	1,203,100	13.41
*TEXAS INSTRUMENTS, INC.	-	-	_	47	61	38	355,700	9.09
NATIONAL LEAD COMPANY	-	38	36	48	60	44	563,500	4.83
PFIZER (CHAS.) & CO., INC.	_	22	37	49	60	38	1,826,400	11.20
GOODRICH (B. F.) COMPANY	17	48	50	50	60	45	677,900	7.53

^{*} Newcomers

THE FAVORITE FITTY

as of the close of 1959, and it compares rankings with that of the close of the previous quarter, a year earlier and ten years ago.

It will be seen from the following tables that International Business Machines is the outstanding favorite, dollarwise, as 87 investment companies have a \$357,000,000 stake in it, holding 814,500 of its shares, or 4.46

per cent of IBM's total stock outstanding.

Standard Oil (N. J.) is the most popular with respect to the number of individual trusts which have some of its shares. As for industries, oil and natural gas shares are the most popular, accounting for 20.5 per cent of the total assets of the trusts studied. This is a smaller percentage than for some time however, as on September 30, 1959 this group accounted for 22.3 per cent of the total. It was 32.6 per cent a year earlier and 31.6 per cent ten years ago.

The tables are on pages 120a and 121a and below.

SUMMARY BY INDUSTRY

dollar value of stocks by industry to total dollar value of favorite fifty

	12/31/59	9/30/59	12/31/58	12/31/49
Oils & Nat. Gas	20.5%	22.3%	32.6%	31.6%
Chem. & Drugs	. 16.5	14.8	11.2	10.9
Steels	12.5	14.2	13.7	_
Electrical Equipment	10.3	5.7	2.3	4.8
Utilities	9.3	9.2	10.9	16.4
Office Equipment	6.6	6.6	5.8	1.9
Rubber	6.2	6.2	6.4	2.2
Miscellaneous	18.1	21.0	17.1	32.2
	100.0	100.0	100.0	100.0

RANK BY NUMBER OF INVESTMENT COMPANIES

		Companies Holding			Companies Holding
1.	Standard Oil, N. J.	107	26.	Int'l Paper Co.	53
	DuPont (E. I.)	94		Dow Chemical Co.	53
	General Motors	94	28.	Merck & Co.	51
	Texaco, Inc.	93	29.	Standard Oil. Ind.	50
	I.B.M.	87	30.	Anaconda Copper Co.	50
	U. S. Steel Corp.	87		Southern Co.	49
	General Electric	83	32.	Gen'l Public Utilities	49
	Royal Dutch Petrol.	80	33.	Sinclair Oil Corp.	49
	Union Carbide Corp.	70	34.	So. Cal. Edison	49
	Int'l Nickel, Canada	69	35.	Goodyear T&R	47
	Westinghouse Elec.	68		Central & South West	47
	Amer. Tel. & Tel.	67	37.	Columbia Bdcst. System	n 47
	Gulf Oil Corp.	65	38.	Continental Can	47
	Standard Oil, Calif.	63	39.	Texas Utilities Co.	46
	Ford Motor Co.	62	40.	Am. Electric Power	46
	Republic Steel Corp.	61	41.	Allied Chemical	45
	Bethlehem Steel	61	42.	Gen. Tel. & Electron.	45
	Aluminum, Ltd.	60	43.	Goodrich (B. F.) Co.	45
	Radio Corp. of Amer.	59	44.	Southern Pacific Co.	45
	Socony Mobil Oil	58		National Lead Co.	44
	Armco Steel Corp.	57	46.	Florida Power & Light	43
	Continental Oil Co.	57	47.	Aluminum Co. of Am.	43
	Monsanto Chemical	57	48.	Southern Railway Co.	43
	Phillips Petroleum	56	49.	Kennecott Copper	43
	Deere & Co.	54	50.	Minn. Mining & Mfg.	41

DISPLACED: Alum. Co of Amer; Deere & Co; Southern Railway Co; Superior Oil (Cal); U. S. Gypsum

Cardiac damage reduced in acute rheumatic fever



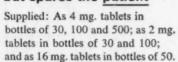
Pericarditis with pericardial effusion; roentgenogram before therapy.

In 243 patients hospitalized for acute rheumatic fever, high-dosage corticotherapy led to regression or disappearance of significant murmurs at least twice as often as did management with salicylate, small doses of steroid, or no medication. Early initiation of therapy increased the percentage of patients showing cardiac improvement.1

there is only one methylprednisolone, and that is

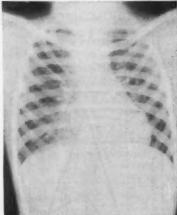


the corticosteroid that hits the disease, but spares the patient



*TRADEMARK, REG. U. S. PAT. OFF. -

1. Massell, B. F.: Paper presented at A Symposium on Steroid Therapy, Chicago, Ill., May 15-16, 1959.



Dramatic reduction in heart size after pericardial tap of only 150 cc. and 6 days of Medrol therapy. X-rays courtesy of Lorin E. Ainger, M.D.

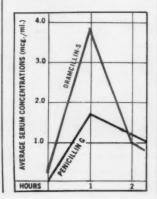
NEW ORAL SYNTHETIC PENICILLIN

The new "spoon" penicillin

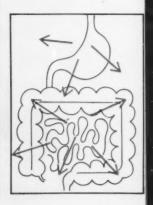
Blood levels after oral administration: twice as high as oral potassium penicillin V.¹

 ...and

twice as
high as
intramuscular
penicillin G
potassium.



...absorbed
speedily throughout the
gastrointestinal
tract—stomach
to colon.²





that surpasses* the "needle"

Effective against "resistant" staphylococci: Some strains of staphylococci resistant to penicillins G, O and V in vitro exhibit sensitivity to potassium phenethicillin (DRAMCILLIN-S). This synthetic penicillin appears more resistant than natural penicillins to inactivation by staphylococcal penicillinase.

Allergenicity: It is not as yet possible to draw definite conclusions regarding the incidence of allergenicity to DRAMCIL-LIN-S, or to its cross-allergenicity with natural penicillins. It is recognized that oral therapy presents less danger of severe allergic reactions than does parenteral penicillin therapy. The usual precautions for oral penicillin therapy should always be observed. Special care should be exercised in patients with histories of asthma, hay fever, urticaria, or previous reaction to penicillin.

Indications: DRAMCILLIN-S is indicated in the treatment of infections caused by

penicillin-sensitive organisms. Like all oral penicillins, it is not recommended at present in deep-seated or chronic infections, subacute bacterial endocarditis, meningitis or syphilis.

Dosage: One or 2 teaspoonfuls (125 mg.), three or four times daily, depending on the severity of the infection. To assure optimum blood levels, it is advised that this medication be taken in the fasting state. Beta hemolytic streptococcal infections should be treated for at least 10 days.

Availability: Bottles of 30 and 60 cc. Each teaspoonful (5 cc.) supplies 125 mg. DRAMCILLIN-S, equivalent to 200,000 units.

References: 1. Wright, W.: Cited by Morigi et al.? 2. Pindell, M. H.; Tisch, D. E.; Hoekstra, J. B., and Reiffenstein, J. C.: Antibiotics Annual, 1959-1960, p. 119. 3. Morigi, E. M. E.; Wheatley, W. B., and Albright, H.: Antibiotics Annual 1959-1960, p. 127. *with regard to immediate blood levels



STEEL INDUSTRY EXPANDING

The economic revival in Europe, and throughout most of the world, has brought severe competition to the United States steel industry. One effect is that our steel industry is determined to spend money on a long-range program of modernization and expansion.

While improvement and rehabilitation has been a continuous process since World War II, it will likely be stepped up this year, and in 1960 the trade looks for the industry to spend a near-record total of \$1,600,000,000 for new equipment and construction. This would be second only to the year 1957, when \$1,722,-000,000 was spent.

In most steel companies, the emphasis is on cost-reducing modernization rather than outright expansion. For example, Jones & Laughlin Steel Corporation has stressed it is spending \$85,000,000 to boost mill efficiency and cut production costs.

The steel industry entered the 1960's with annual steelmaking capacity at a record level of some 148,500,000 ingot tons, nearly 50 percent higher than 10 years ago.

Even so, John F. Smith Jr., president of Inland Steel Co., said recently the industry must add about 22,000,000 tons to its annual production potential over the next 10 years to keep pace with our economic growth.



At East Chicago, Ind., Inland Steel is operating a modern highspeed slabbing mill that illustrates this point. Almost completely automatic, the mill can be run by one man operating two pushbuttons—one to start the mill, the other to stop it. An elaborate electronic control system does the rest, telling the mill exactly how the steel ingots should be shaped.

This is an example of the trend toward modernization. There are others. From ironmaking blast furnaces to giant finishing mills, the whole steelmaking process is being improved as technology advances.

COMEBACK IN JAPAN'S MOTOR INDUSTRY

Japan, with her lower scale of wages, has demonstrated what she can do in



the manufacture of light goods such as textiles. She has made her competition felt in the world market, as any textile man will tell you.

She is also attaining greater importance in heavy industry, notably automobiles. The Automobile Industry Association, Tokyo, expects Japan to manufacture 300,000 automobiles this year. That sounds small when compared with the production of companies such as General Motors, Ford and Chrysler, but it represents a gain.

It means we will see Japanese cars on the highways of the United States and in Cuba, Venezuela, Iran, Indonesia, Formosa, Thailand and other countries. Japan manufactured 262,-814 automobiles of all types in 1959, a 39.6 percent increase over 1958. On this basis, 1960 production is easily expected to top the 300,-000 mark, the association forecasts.

The 1959 production included 78,598 small passenger cars, 177,485 trucks and 6,731 buses.

Auto exports also gained over 1958, by 44 percent. Total autos sold abroad in 1959 numbered 14,725—4,884 of them passenger cars—with an overall value of \$30,724,000 association sources said.



she calls it "nervous indigestion"

diagnosis: a wrought-up patient with a functional gastro-intestinal disorder compounded by inadequate digestion. treatment: reassurance first, then medication to relieve the gastric symptoms, calm the emotions, and enhance the digestive process. prescription: new Donnazyme—providing the multiple actions of widely accepted Donnatal® and Entozyme®—two tablets t.i.d., or as necessary.

Each Donnazyme tablet contains

-In the gastric-soluble outer layer: Hyoscyamine sulfate, 0.0518 mg.; Atropine sulfate, 0.0097 mg.; Hyoscine hydrobromide, 0.0033 mg.; Phenobarbital (½ gr.), 8.1 mg.; and Pepsin, N. F., 150 mg. In the enteric-coated core: Pancreatin, N. F., 300 mg., and Bile salts, 150 mg.

ANTISPASMODIC - SEDATIVE - DIGESTANT

DONNAZYME

A. H. ROBINS COMPANY, INCORPORATED . RICHMOND 20, VIRGINIA

in edema or

- more doctors are prescribing –
- more patients are receiving the benefits of -
 - more clinical evidence exists for —



"Chlorothiazide was given to 16 patients for a total of 295 patient-treatment days." "Chlorothiazide is a safe, oral diuretic with a clinical effect equal to or greater than a parenteral mercurial." Harvey, S. D. and DeGraff, A. C.: N. Y. State J. Med., 59:1769, (May 1) 1959.



"... our program has been one of polypharmacy in which we attempt to deplete body sodium with chlorothiazide. This drug is continued indefinitely as background medication for all antihypertensive drugs." Moyer, J. H.: Am. J. Cardiology, 3:199, (Feb.) 1959.



"Chlorothiazide is an excellent agent for relief of swelling and breast soreness associated with the premenstrual tension syndrome, since all patients [50] with these complaints were completely relieved." Keyes, J. W. and Berlacher, F. J.: J.A.M.A., 169:109, (Jan. 10) 1959.

DOSAGE: Edema—One or two 500 mg. tablets DIURIL once or twice a day. Hypertension—One 250 mg. tablet DIURIL twice a day to one 500 mg. tablet DIURIL three times a day.

SUPPLIED: 250 mg, and 500 mg, scored tablets DIURIL (chlorothiazide) in bottles of 100 and 1,000.

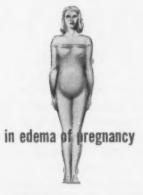
DIURIL is a trademark of Merck & Co., INC.

Additional information is available to the physician on request.

hypertension

CCHLOROTHIAZIDE)

than for all other diuretic-antihypertensives combined!



"One hundred patients were treated with oral chlorothiazide." "In the presence of clinically detectable edema, the agent was universally effective." "Chlorothiazide is at present the most effective oral diuretic in pregnancy." Landesman, R., Ollstein, R. N. and Quinton, E. J.: N. Y. State J. Med., 59:66, (Jan. 1) 1959.



"All three of the patients with Laennee's cirrhosis, ascites and edema had a favorable response, with a mean weight loss of 8 lbs., during the five-day treatment period with a slight decrease in edema." Castle, C. N., Conrad, J. K. and Hecht, H. H.: Arch. Int. Med., 103:415, (March) 1959.



"In a study of 10 patients with the nephrotic syndrome associated with various types of renal disease, orally administered chlorothiazide was a successful, and sometimes dramatic, diuretic agent." Burch, G. E. and White, M. A., Jr.: Arch. Int. Med., 103:369, (March) 1959.



MERCK SHARP & DOHME Division of Merck & Co., Inc., Philadelphia 1, Pa.

GUIDE FOR INVESTORS

Based on recommendations of the Securities and Exchange Commissions in cooperation with the New York Stock Exchange, American Stock Exchange, National Association of Securities Dealers and others.

- 1. Think before buying, guard against all high pressure sales.
- 2. Beware of promises of quick spectacular price rises.
- 3. Be sure you understand the risk of loss as well as prospect of gain.
- 4. Get the facts—do not buy on tips or rumors.
- 5. Give at least as much thought when purchasing securities as you would when acquiring any valuable property.
- 6. Be skeptical of securities offered on the telephone from any firm or salesman you do not know.
- 7. Request the person offering securities over the phone to mail you written information about the corporation, its operations, net profit, management, financial position and future prospects.

REACH FOR A SWEET, INSTEAD

Do you believe that candy creates fat and injures the teeth? Not so, asserts the Candy Manufacturers Association, and it is determined it will disprove these two "myths." It is also going to explore a medical theory that sweets, especially candy, can be useful in preventing and treating alcoholism.

The candy makers held a convention in New York in January, and regarding these alleged myths it proclaimed:

- Candy isn't fattening; in fact, it can help you keep your waistline because it is such a high energy food in proportion to calorie content.
- Candy won't hurt your teeth. Experiments by Pennsylvania State University, carried on in schools over several years, produced the somewhat surprising conclusion that kids who eat the most sweets have the fewest cavities.

In spite of public misconceptions about candy and health, the industry is doing all right, according to Victor Bonomo, Brooklyn, Chairman of the National Confectioners Association. This year's sales should hit three billion pounds, up 170-million from last year.

Although 1959 sales set a record in total volume, they did not come up to the 20.5 pounds per capita of 1944. "The armed forces' use of candy as a high energy food on the battlefields set the all-time per capita record that year," Mr. Bonomo said. "At present we are eating about 16.4 pounds of candy per capita."

This is divided into 2,000 varieties, all of which have been sold for years. There are new twists in making candy and selling it but the finished products are the same delightful hard candies, chocolate bonbons, fondants, gum drops, jelly beans, nougats, creams, lozenges and sticks that our grandparents doted on.

The information set forth herein was obtained from sources which we believe reliable, but we do not guarantee its accuracy. Neither the information nor any opinion expressed constitutes either a recommendation or a solicitation by the publisher or the authors for the purchase or sale of any securities or commodities.

FOUND: a dependable solution to

"the commonest gynecologic office problem"

CAULTOVAGINITIS, CAUSED BY TRICHOMONAS VAGINALIS, CANDIDA ALBICANS, Haemophilus vaginalis, or other bacteria, is still the commonest gynecologic office problem . . . cases of chronic or mixed infection are often extremely difficult to cure." Among 75 patients with vulvovaginitis caused by one or more of these pathogens. TRICOFURON IMPROVED cleared symptoms in 70; virtually all were severe, chronic infections which had persisted despite previous therapy with other agents. "Permanent cure by both laboratory and clinical criteria was achieved in 56. . . . "

TRICOFURON

Improved

Swiftly relicious itching, burning, malodor and leukorrhea
 Destroys Trichomonas vaginalis, Candida (Monilia) albicans,
 Haemophilus vaginalis
 Achieves clinical and cultural cures where others fail
 Nonirritating and esthetically pleasing

2 steps to lasting relief:

- 1. POWDER for weekly insufflation in your office. MICOFUR®, brand of rifuroxime, 0.5% and FUROXONE®, brand of furazolidone, 0.1% in an acidic water-dispersible base.
- 2. SUPPORTORIES for continued home use each morning and night the first week and each night thereafter—especially during the important menstrual days. MICOFUR 0.375% and FUROXONE 0.25% in a water-miscible base.

Rx new box of 24 suppositories with applicator for more practical and economical therapy.

NITROPURANS—a unique class of antimicrobials RATON LABORATORIES, NORWICH, NEW YORK

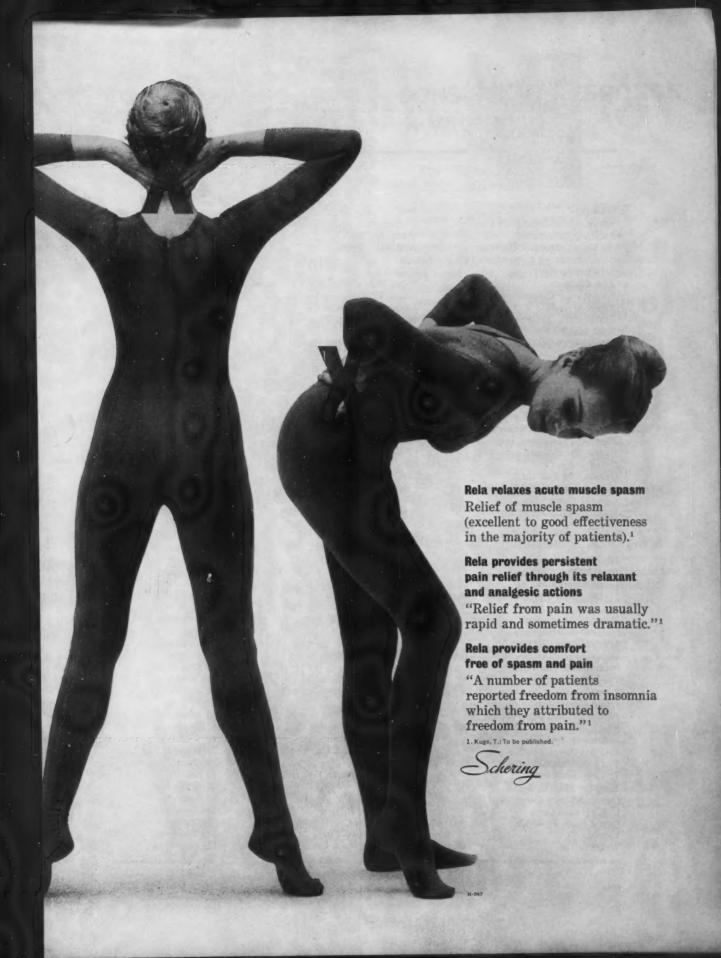
NO SPRAIN, NO STRAIN, OR LOW BACK PAIN can resist the rapid relaxant relief of

RELA

RELA—SCHERING'S MYOGESICX RELAXES MUSCLE TENSION FOR MORE ADEPT MANAGEMENT OF BOTH SPASM AND ITS PAIN

Rela is most useful in the areas where narcotic analgesics are unwarranted and where salicylates are inadequate. Its muscle-relaxant properties are dependable yet significantly free of the limitations or problems often associated with other relaxants.

XMYOGESIC: MUSCLE RELAXANT



INVESTMENT

REPORTS

CURRENTLY

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Articles concerning the following industries and corporations are available on request from the firms indicated. You can do us a favor if you mention Medical Times as the source of your information.

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CONSISTENT RESPONSE

ANTITRICHOMONAL EFFECTS, RAPID DIFFUSION,

85% SUCCESS:1.2 TRIBURON VAGINAL CREAM ACHIEVED SYMPTOMATIC CONTROL IN 109 OF 128 WOMEN WITH TRICHOMONAL, MONILIAL AND NON-SPECIFIC VAGINITIS. PARTICULARLY GOOD RESULTS WERE OBTAINED IN TRICHOMONAL AND MIXED INFECTIONS. ONLY TWO INSTANCES OF TRANSIENT BURNING OCCURRED, AND ONLY 11 RECURRENCES WERE NOTED. FURTHER, THE ACTIVE COMPONENT OF TRIBURON VAGINAL CREAM, TRICLOBISONIUM CHLORIDE, HAS BEEN PROVED "NON-IRRITATING ... NOT SENSITIZING."3

TRIBURON VAGINAL CREAM-FOR VULVITIS AND VAGINITIS DUE TO TRICHOMONAS VAGINALIS, CANDIDA ALBICANS, HEMOPHILUS VAGINALIS AS WELL AS MIXED INFECTIONS; AFTER CAUTERIZATION, CONIZATION AND IRRADIATION; FOR SURGICAL AND POSTPARTUM TREATMENT, THERAPY MAY BE CONTINUED DURING PREGNANCY AND MENSTRUATION.

> HIGHLY ACCEPTABLE TO PATIENTS TRIBURON VAGINAL CREAM-A SMOOTH, WHITE, NONSTAINING PREPARATION WITH NO HINT OF MEDICINAL ODOR-HAS THE ADVANTAGES OF CONVENIENT BEDTIME ADMINISTRATION AND OF DISPOSABLE APPLICATORS.

> > SUPPLIED: 3-OUNCE TUBE WITH 18 DISPOSABLE APPLICATORS.

REFERENCES: 1. N. MULLA AND J. J. McDONOUGH, ANN. NEW YORK ACAD. SC., 82:(ART. 1), 182, 1958. 2. L. E. SAVEL, D. B. GERSHENFELD, J. FINKEL AND P. DRUCKER, IBID., P. 108. 3. R. C. V. ROBINSON AND L. E. HARMON, ANTIBIOTICS ANNUAL 1958-1959, NEW YORK, MEDICAL ENCYCLOPEDIA,

TRIBURONS CHLORIDE

ROCHE LABORATORIES DIVISION OF HOFFMANN-LA ROCHE INC. NUTLEY 10, N. J.

decisive microbicidal therapy in a delicate matter not an antibiotic · not a nitrofuran containing Oxethazaine a gastric mucosal anesthetic

OXAINE*

Oxethazaine in Alumina Gel, Wyeth

for gastritis

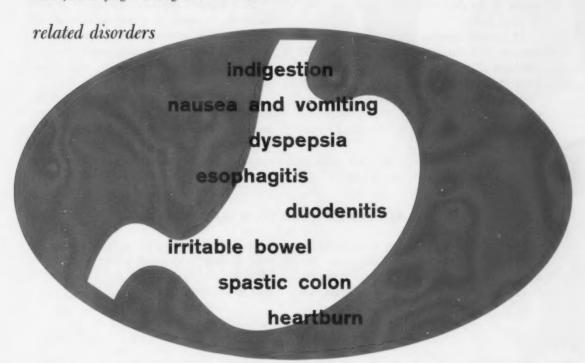
an original development, backed by 5 years' research and clinical trial Oxame contains a gastric mucosal anesthetic for the relief of pain of gastritis.

OXAINE is indicated in the many patients who do not respond to diet, antacids and anticholinergies.

As reported in J.A.M.A., Oxaine brought complete relief to 96% of 92 gastritis patients suffering substernal pain and upper abdominal distress.

Deutsch, E., and Christian, H. J.: J.A.M.A. 169:2012 (April 25) 1959.

Oxaine provides sustained anesthesia over many hours, unaffected by ebb and flow of gastric contents. Oxethazaine, the mucosal anesthetic in Oxaine, is 4000 times more potent topically than procaine. Safe, not a "caine." Only two known cases of sensitivity (glossitis) occurred in extensive clinical trials. Easily administered, simple dosage—just 2 teaspoonfuls 15 minutes before meals and at bedtime. Bland, noncloying over long-term administration.



How OXAINE Relieves Pain, Hastens Recovery

Gastric mucosa can heal more quickly, because local anesthetics inhibit acid and pepsin secretion, by preventing release of *gastrin* from the antrum of the stomach.

Patients tolerate a more varied diet and a larger amount of food—and, because of OXAINE, enjoy their food without fear of pain following meals.

Supplied: In bottles of 12 fluidounces.

Wyeth Laboratories Philadelphia 1, Pa.

They feel free of bloating and the disturbing sensation of fullness when only a little food has been ingested—because the anesthesia of Oxaine desensitizes irritated nerve receptors.

Those with irritable bowel syndrome are spared the embarrassing urge to defecate during meals—because Oxaine diminishes the exacerbated gastrocolic reflex.



A Century of Service to Medicine

"GOING PUBLIC"

When a corporation, owned by an individual, a family, or a relatively small group of associates, decides to market its shares among a large number of investors, Wall Street says it has "gone public." Frequently this is done because the individual who started the business years ago, and has been responsible for its conduct, is getting old and he becomes aware of the desirability of passing the reins to other hands.

At a recent meeting of the American Management Association Robert A. Weaver, Jr., president of the Bettingger Corporation, Milford, Mass., forecast that by 1975 the words "going public" will be a household phrase and that some 30,000 businesses now in private hands will have become publicly-owned corporations.

The addition of these 30,000, new publiclyowned firms would triple the number of such companies now existing in this country, according to Mr. Weaver. He 'cited a potential of 150,000 companies as likely candidates for public financing. "Likely candidates," he defined as "all companies with over \$250,000 in assets and in the right kinds of businesses, and about one-third of those with between \$50,000 and \$100,000 assets."

He attributed this vast increase in interest in public financing to continued tight money policies, high interest rates, more inflation, continued high taxes, rising wages, and the high costs of carrying inventories and of new equipment.

He also gave credit to the greater understanding that is developing in the investment banking community of the needs of small business and conversely that small business managers are becoming more aware of what investment bankers can do for them.

REASSURANCE FOR YOUR DIAMONDS

Fears that the Soviet Union would upset the world diamond market by flooding the free world with cut-rate gems have been allayed. Russia has signed an agreement providing for the orderly marketing of its diamonds to the west through the central selling organization of the De Beers Group. De Beers controls the bulk of diamond sales.

AUTOMATED MERCHANDISE

We are all acquainted with automats, vending machines for cigarettes and candy, and subway turnstiles. We learn from a recent meeting of the National Retail Merchants Association that department stores may soon have completely automated warehouses, where goods will be stored and shipped out to customers without ever being touched by human hands.

This prospect was outlined by the Association's president, Richard Tatlow II, of Abbott, Merkt & Co., but he warned the retailers not to wait around for the pushbutton age, as many big stores need better warehouses right now.

The completely automated warehouse of the future, he said, would have no aisles, no trac-

tor trailers or lift trucks. Everything would be controlled by an electronic brain. All merchandise would be factory-packed and stored automatically in its proper place.

Loading and storing machinery would make inventory and other records automatically too. The merchandise would be moved around the warehouse in portable bins suspended from monorails or on mobile stock carriers. Automatic order picking machines would move the merchandise out of the warehouse to the truck loading platforms and would make records of the withdrawals the same time.

But he said large storekeepers who wait for all this will likely go on losing money on their present warehouse. They should modify present storage facilities gradually.



TARGET ACTION specifically on the large bowel

selective peristaltic stimulant · smooth, overnight action · no griping · well tolerated, non-habituating

Available in 75 mg. scored tablets and suspension.

WHERE STOOL SOFTENING IS ALSO INDICATED

Double-strength capsules for maximum economy and convenience.

For lower dosage and in children. Available in capsules and suspension.

IN PROPORTIONS PROVED OPTIMAL BY CLINICAL TRIAL IN OVER 550 CASES.



SCHENLABS PHARMACEUTICALS, INC . NEW YORK 1, N. Y. Manufacturers of NEUTRAPENe for I

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R.
Prescription
For
Travel

AMA Convention: Miami Beach

If you are planning to attend the medical convention in June, here is a comprehensive round-up of things to do and see in the Miami-Miami Beach area. This ideal vacation spot offers all kinds of relaxing activities—from sun bathing and strolls through palatial gardens to a variety of gay nightlife.

Miami Beach is like no other city anywhere. An entirely separate community from neighboring Miami, it is dedicated to the single end of housing, dining, sunning and entertaining its visitors. Surrounded by ocean and bay and crisscrossed with miles of picturesque waterways, this is the land of sun worshipers, of luxury hotels, of golden beaches, of cheesecake and celebrities, beloved of columnists and publicity men.

Miami, on the other hand, the largest city in the state, is the industrial, commercial, and tourist hub of South Florida. Its great metropolitan area is edging close to the million mark in population. Flanking Biscayne Bay, across which six causeways lead to the beckoning skyline of Miami Beach, are a flock of interesting satellites to explore: North Miami, Miami Shores, Miami Springs, Coral Gables, South

Miami, Hialeah, and others.

Coral Gables, southwest of Miami, is as colorful as its big neighbor but in a different way. Here is the cultural and educational center of the area, the home of the University of Miami with a student body of 14,000, a world-famous Ring Theater, a fine medical school, and a symphony orchestra and art museum.

And then, within a short automobile or bus ride from Miami, are such attractions as the Everglades National Park, Hollywood and Fort Lauderdale, the Overseas Highway to Key West and the agricultural districts of Dade County.

Here is all the pomp and glitter and excitement of a state which continues to generate new developments. Here, also, can be found a

Continued on page 144a



Photos: Florida State News Bureau



activity

toleration

peak action

against relapse

NOW...THE EXTRA BENEFITS OF BROAD-SPECTRUM

ECLOMYC

IN THE NEW, CHERRY-FLAVORED SYRUP

75 mg./5 cc. tsp., in 2 fl. oz. bottle-3-6 mg. per lb. daily in four divided doses

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York



The first full-range medication for chronic gout and gouty arthritis ...new

provides comprehensive treatment by combining in Average Dose: One tablet three times a one convenient dose:

FLEXIN® Zoxazolaminet: the most potent uricosuric able upon request.

Colchicine: time-tested specific for gout-effective in preventing acute attacks1,5,6

TYLENOL® Acetaminophen: effective, nonirritating (1) Boland, E. W.: World-Wide Abstracts analgesic7 which does not interfere with uricosuric action8,9

the triple therapeutic action of TRIURATE provides all Burns, J. J.; Yü, T. F.; Berger, L., and these clinical benefits:

- promotes maximum urinary urate excretion
- · markedly reduces serum uric acid
- · relieves chronic pain and discomfort
- lessens frequency and severity of acute attacks
- · facilitates resorption of existing tophi... prevents formation of new deposits
- helps restore mobility
- · maintains effectiveness with minimal side effects

*Trade-mark

day after meals. Literature on method of administration and dosage is avail-

Supplied: TRIURATE is available as beige, scored tablets, imprinted McNEIL, bottles of 50.

3:11, 1960. (2) Kolodny, A. L.: J. Chron. Dis. 11:64, 1960. (3) Talbott, J. H.: Arth. & Rheumat. 2:182, 1959. (4) Gutman, A. B.: Am. J. Med. 25:401, 1958. (5) Beckman, H.: Pharmacology in Clinical Practice, Philadelphia, Saunders, 1952, pp. 515-516. (6) Talbott, J. H .: J. Bone & Joint Surg. 40-A:994, 1958. (7) Batterman, R. C., and Grossman, A.: J.A.M.A. 159: 1619, 1955. (8) Connor, T. B.; Carey, T. N.; Davis, T., and Lovice, H.: J. Clin. Invest. 38:997, 1959. (9) Reed, E. B.: Unpublished data.

†U.S. Patent No. 2,890,985

MCNEIL LABORATORIES, INC . PHILADELPHIA 32, PA. MCNEIL





Recreational activities in the Miami area: A performing porpoise at the Seaquerium, swimming at Crandon Park, a moment of action in the "world's fastest game," jai alai. And there's fishing, golf, concerts, art exhibits and other attractions to suit almost every taste.





TRAVEL

solid core of reasonably-priced activities for every taste and age.

Visitors are surprised to find that Florida's summer climate seldom reaches the maximum temperatures common to the big cities of the north. Occasional summer afternoon thunder showers have a cooling effect and the entire state enjoys the breezes common to all subtropical coasts. So clothes that are cool, casual, and comfortable are "right" for almost any hour and place. Except in the more sophisticated resorts, there is little need for formal wear.

For men, short-sleeved sports shirts and slacks are a universal choice. Of course, one or more conventional suits are handy for the more formal convention activities. Women find colorful cottons very popular for sightseeing, shopping, and most day-time spectator sports. Take plenty of sportswear and beach togs.

If you drive down, remember that the State Road Department in Tallahassee will be glad to send you an official road map containing much valuable touring information. Near the state line on six of the major U.S. highways (17, 1, 19, 41, 90, 231) are state-operated Welcome Stations. Here you will find a warm welcome from a staff of well-informed young women who will answer questions about travel routes and other vacation details.

Transportation from Miami International Airport and railroad terminals direct to Miami Beach is easily arranged. A jitney limousine service with frequent round-trip schedules between all points in downtown Miami and Miami Beach runs around-the-clock.

Continued on page 146a

IN <u>ORAL</u> CONTROL OF PAIN

ACTS FASTER—usually within 5-15 minutes. LASTS LONGER—usually 6 hours or more. MORE THOROUGH RELIEF—permits uninterrupted sleep through the night. RARELY CONSTIPATES—excellent for chronic or bedridden patients.

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit forming. Federal law permits oral prescription.

Each Percodan Tablet contains 4.50 mg. dihydrohydroxycodeinone hydrochloride, 0.38 mg. dihydrohydroxycodeinone terephthalate, 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. phenacetin, and 32 mg. caffeine.

Also available—for greater flexibility in dosage —Percodan® Demi: The Percodan formula with one-half the amount of salts of dihydrohydroxycodeinone and homatropine.

Endo

ENDO LABORATORIES
Richmond Hill 18, New York

Percodan Tables

FOR PAIN

To list all of the things that a visitor can find to do while in the Greater Miami area is impossible. The items are simply too numerous and too varied. But here are some ideas and some hints and the visitor will find the complete menu rich and inviting.

Swimming and sunning are, of course, the main diversion. Besides hotel beaches, the surf enthusiast will find many other palm-fringed shores and strands in which to dip a toe or flop a surfboard. Crandon Park on Key Biscayne is reached by the Rickenbacker Causeway and has a two-and-one-half mile beach dotted with 10,000 coconut palms. A ride on a narrow-gauge railroad gives a panoramic view of this paradise. The Miami Seaquarium is nearby and features performing porpoises, sea lions, sharks, and other interesting live marine specimens.

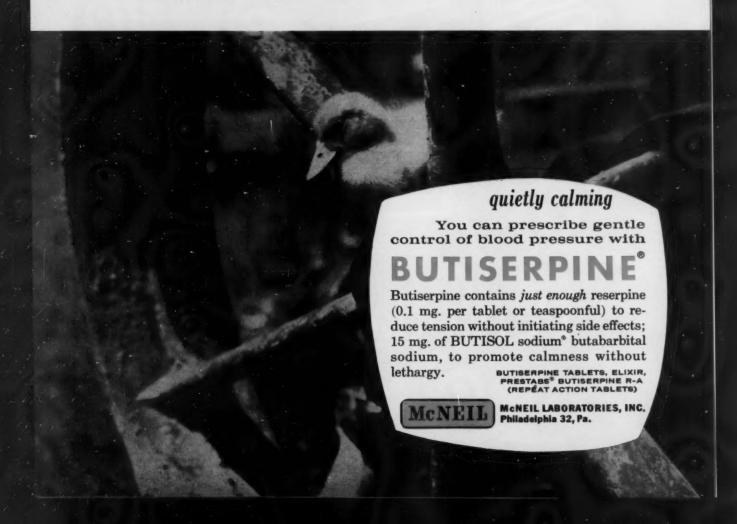
Tahiti Beach and Matheson Hammock are

south of Miami in Coral Gables and offer a somewhat secluded South Sea island atmosphere with swimming, boating, and fishing facilities. In the other direction, north of Miami Beach, Haulover Beach, where giant ocean swells roll inland between the islands and the mainland, is very popular. This beach is quite close to famous Motel Row in Bal Harbour and Surfside, where architectural motifs run from Aztec to Zulu.

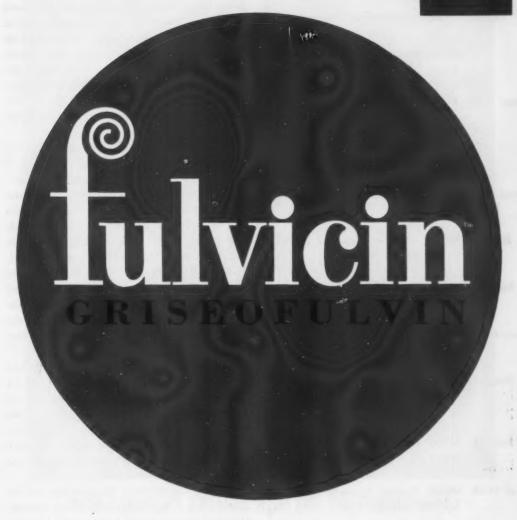
Fishing

For fishing action, the knowledgeable head for the City Docks in Miami Beach or the Municipal Yacht Basin in Bayfront Park in downtown Miami. Charter and party boats operating out of here provide plenty of tackle and thrills in chasing after the hundreds of varieties of fish which inhabit Florida waters. Smaller boat docks can be found everywhere and there is considerable "free-lance" fishing activity off the score of bridges which dot the area.

Continued on page 148a







clears ringworm orally regardless of duration or previous resistance to treatment

spares the patient—embarrassment of epilation and skullcaps, difficulty and ineffectiveness of topical medications, potential hazard of x-ray treatments

8-428

TRAVEL

SOME EVENTS DURING JUNE IN MIAMI - MIAMI BEACH AREA

- June 2-14 Fort Lauderdale Mrs. America
 Pageant in which finalists from the
 50 states and District of Columbia
 compete for National Homemaking
 Queen title.
- June 4, 11 Hialeah—Stock car racing, Hialeah 18, 25 Speedway—8:15 P.M.
- June 7 Miami Beach Boxing at Auditorium—8:45 P.M.
- June 7-9 Miami—Baseball, Miami Marlins vs. Montreal. Miami Stadium.
- June 10-12 Miami—Baseball, Miami Marlins vs. Toronto, Miami Stadium.
 - June 19 Miami Beach Pop Concert, University of Miami Symphony. Auditorium—8:30 P.M.
 - June 21 Miami Beach Boxing at Auditorium—8:45 P.M.
- June 21-23 Miami—Baseball, Miami Marlins vs. Rochester, Miami Stadium.
 - June 24 Miami Beach Wrestling at Auditorium—8:45 P.M. (tentative date)
- June 24-26 Miami—Baseball, Miami Marlins vs. Buffalo, Miami Stadium.
 - June 26 Miami Beach Pop Concert, University of Miami Symphony. Auditorium, 8:30 P.M.
 - May 26 Coral Gables—Art Exhibit. Eighth thru Annual Member's Exhibition, Lowe
 - June 26 Art Gallery, University of Miami.

Definitely off-beat in character, the fresh water fishing to be found in the newly-created recreational areas in the Everglades Flood Control District to the west of Miami and Fort Lauderdale is attracting more and more adventurers. For example, many boat ramps and fishing sites are found in the Andytown region west of Fort Lauderdale on U.S. 27. A prize scrapper, the bigmouthed black bass, is found here.

Although the horse and greyhound racing tracks will be closed during the latter part of June, a wide variety of sightseeing and nightlife attractions will be open. Sightseeing tours by boat, bus, and blimp cover the entire area and arrangements can be made at all hotels and travel agents. One particularly popular boat tour takes the visitor among the many man-made islands of Biscayne Bay where he obtains intimate glimpses of homes of the many famous persons who live there during the winter. Then the sightseer is taken up the Miami River to the Musa Isle Seminole Indian Village.

Just south on the mainland is Fairchild Tropical Garden where the late Dr. David Fairchild planted his famous collection of tropical plants and shrubs from all over the world. In the same general region are the Parrot Jungle, the Rare Bird Farm, and a Monkey Jungle where the humans are caged and the monkeys run wild.

Hugging the shores of Biscayne Bay not far from U.S. 1 as this route curves slowly through the southern environs of Miami, Villa Vizcaya, the palatial home and gardens of the late James Deering, is an unparalleled monument to the baronial way of life, an antique lover's paradise. The villa, now open to the public as the Dade County Art Museum, is filled with Deering's purchases made during 25 years of European travel. The exterior and grounds are late Italian Renaissance while inside the house furnishings and decor span the years from 1450 to 1800 and are French, Spanish, German and English, as well as Italian.

A thousand skilled artisans and craftsmen labored over a five-year period to create the proper setting for these art objects. When Continued on page 152a



NEW ESTROGEN APPROACH TO THE POSTMENOPAUSE

Menopausal symptoms are often intensified following the sharp drop in available endogenous estrogen during the early postmenopause.

At that time—when periods stop but symptoms continue—TACE is most valuable. It usually means a symptom-free adjustment to the postmenopausal state. How? TACE stores in body fat, releases slowly, evenly, in the same manner as a natural hormonal secretion. A normal course of TACE therapy is 30 or 60 days. But even after therapy stops, estrogenic activity continues, gradually tapers off, finally is exhausted in about 2 months.

Thus, sudden endometrial change doesn't occur, withdrawal bleeding is rare. Artificial stimulation and "estrogen dependence" are avoided. Complicated dosage adjustment is unnecessary. Finally, there are no "peak-and-valley" estrogenic effects.

You can observe this unique effect in your patients. Simply prescribe two TACE 12 mg. capsules daily for 30 days. A severe case may require an additional 30-day course,

THE WM. S. MERRELL COMPANY

New York • Cincinnati • St. Thomas, Ontario



for cardiac arrhythmias...obvious advantages

PRONESTYL HYDROCHLORIDE

SQUIBB PROCAINE AMIDE HYDROCHLORIDE

Pronestyl offers obvious advantages over quinidine and procaine in the management of cardiac arrhythmias: "Procaine amide [Pronestyl] should be the drug of choice in arrhythmias of ventricular origin." 1—on oral administration, side effects are less marked than with quinidine—administered I. V., Pronestyl is safer than a corresponding I.V. dose of quinidine—administered I. M., Pronestyl acts faster than I. M. quinidine2—Pronestyl sometimes stops arrhythmias which have not responded to quinidine3.4—Pronestyl may be used in patients sensitive to quinidine—more prolonged action, less toxicity, less hypotensive effect than procaine—no CNS stimulation such as procaine may produce.

Supply: For convenient oral administration: Capsules, 0.25 gm., in bottles of 100.

For I. M. and I. V. administration: Parenteral Solution, 100 mg. per cc., in vials of 10 cc.

References: 1. Zapata-Diaz, J., et al.: Am. Heart J. 43:854, 1952. 2. Modell, W.: In Drugs of Cholce, C.V. Mosby Co., St. Louis, 1958, p. 454.

3. Kayden, H. J., et al.: Mod. Concepts Cardiovasc. Dis. 20:100. 1951. 4. Miller, H., et al.: J.A.M.A. 146:1004, 1951.





painful breast engorgement prevented

Treatment of choice to suppress lactation. Clinicians have named TACE "... the most satisfactory drug for use at delivery in the suppression of lactation."

Re-engorgement almost never occurs. In over 3,000 patients studied, 1-3 only 3 cases of refilling were reported.

Withdrawal bleeding rare,1-3 because TACE, stored in body fat, is released gradually, even after therapy is discontinued.

Available . . . 12 mg. and 25 mg. capsules

prevent hemorrhage due to uterine atony

TACE with Ergonovine 1. Bennett, E. T. and McCann, E. C.: J. Maine M. A. 45:225. 2. Eichner, E., et al.: Am. J. Obst. & Gynec. 6:511. 3. Nulsen, R. O., et al.: Am. J. Obst. & Gynec. 65:1048.



Merrell THE WM. S. MERRELL COMPANY New York • Cincinnati • St. Thomas, Ontario TRADCHARKS: "TACE WITH ERGONOVINE," TACED

Vizcaya opened on Christmas day in 1916, estimates of its cost ranged up to \$15 million.

The University of Miami in Coral Gables occupies three campuses and is internationally known for its schools of law, medicine, music, and Latin American studies. The main campus has noteworthy streamlined buildings in a modern Caribbean style. A student club built out over a tropical lagoon, dormitories that resemble smart big-city apartments, and the Lowe Art Gallery are popular attractions.

In passing from south Miami to the northern reaches of the city, medically-minded visitors may well want to see the modern Jackson Memorial Hospital center on N. W. 10th Avenue. Laboratories here deal with basic heart research and the problems of aging; there is a cancer research institute and the well-known John Elliott Memorial Blood Bank. An international team of scientists will open a major new research center here this year financed by Howard Hughes.

Miami International Airport, in the northwest corner of the city, handles 10 percent of all the people who fly on the airlines of the United States. There is a new \$26 million terminal in which 74 aircraft can be loaded or unloaded simultaneously—three times the capacity, for instance, of Washington National Airport. Ticket counters stretch a distance of five full city blocks and one aircraft lands or takes off on the average of every 84 seconds.

Spanish Monastery

One of the most fascinating of all jigsaw puzzles lies north of Miami, just one block west of U.S. 1 at 167th Street. This is the 800-year-old Ancient Spanish Monastery of St. Bernard, standing today in a 20-acre formal garden just as it stood years ago in a secluded valley in the province of Segovia, Spain.

The Monastery was purchased by the late William Randolph Hearst, shipped to this country stone by stone, and reassembled from 35,000 pieces which covered an entire dock when the massive structure was unloaded in Florida.

Today wild birds have found a sanctuary in the rooftops of the Monastery and its magnificent refectory, once the monks' big dining hall, houses art treasures from the Middle Ages.

And then you are brought suddenly back to the modern world.

Crossing the causeways from Miami to Miami Beach, two skylines separated by a broad vista of shimmering waters spell out the particular magic that has made this area so famous. Behind you, the towers of Miami—ahead, the brilliant beachfront hotels of Miami Beach stretch as far as the eye can see.

Main Stem

Collins Avenue, the place to see and be seen, unwinds past some 400 deluxe hotels and motels in the heart of one of the greatest ocean resorts in the world. Smart and exclusive shops, the same names you see in New York, Los Angeles, and Chicago, open onto this broad avenue and nearby Lincoln Road. Some 360 restaurants run the cuisine gamut from home cooking to Chinese delicacies. Nightlife entertainment stars the greatest names in show business.

North of Miami Beach, the cities of Hollywood and Fort Lauderdale offer still more attractions. The latter is known as the Venice of America, a city of islands and bays, canals and inlets, with more than 150 miles of waterways. Bahia-Mar, the nation's largest municipal yacht basin, is a city within itself. Fishing ranks with the best and several fleets of charter boats are based here. On Florida A1A and the ocean at Fort Lauderdale is Hugh Taylor Birch State Park with a glistening beach, boating, horseback riding, swimming, picnicking, and fishing.

The Everglades National Park is located on the southern tip of the Florida peninsula and includes parts of the fabulous Florida Keys and the Ten Thousand Islands. It is one of the great natural wonders that draw visitors to South Florida around the year. The entrance station is reached by driving 30 miles southwest from Miami on U.S. 1 to Florida City, and then traveling nine miles along State Road 27.

The Park is open twenty-four hours a day.



PHENOXENE a new synthetic compound

"Chlorphenoxamine (Phenoxene) exerts a gentle yet potent action . . . a muscle relaxant action also an energizing and stimulating action, without induction of excitement or agitation. Patients are able to move faster and more freely and with greater strength and longer endurance. It helps to loosen rigid muscles, and it successfully counteracts akinesia, tiredness, and weakness."*

*Doshay, L. J., and Constable, K.: Treatment of Paralysis Agitans with Chlorphenoxamine Hydrochloride, J.A.M.A. 170:37 (May 2) 1959.

A REPRINT OF THE COMPLETE ARTICLE AND CLINICAL TRIAL SUPPLIES ARE AVAILABLE ON REQUEST.





Vizcaya, the former James Deering estate, now is a sumptuous museum filled with art treasures from Europe, Furnishings span years from 1450 to 1800.

TRAVEL

Park rangers protect the area and are available to assist visitors.

Among the more than 230 varieties of birds found in the Park are bald eagles, herons, limpkins, egrets and roseate spoonbills. The only wild crocodiles in the nation can also be found in this vast 1,400,533-acre land and water wilderness. Alligators, black bears, panthers, wildcats, otters, raccoons and white tail deer are other inhabitants.

At Flamingo, overlooking Florida Bay at the very tip of the peninsula, one finds a motel, a marina, and charter fishing and houseboats for hire.

In the Florida Keys, for more than one hundred miles, a chain of islands sweeps in a great curve from the mainland into the incomparable blueness of a tropical sea. They are small islands: low, narrow shreds of limestone and coral linked by a thin line of bridges. The entire trip from Miami to Key West can be covered at a leisurely pace in little more than half a day. The distance is 158 miles.

The Overseas Highway (U.S. 1) which runs the full length of the Keys was built upon the roadbed originally laid down by the Florida East Coast Railroad. The railroad was built at fantastic cost, only to be abandoned in the early thirties. The highway was then constructed as a public works project during the depression years and it is now possible to drive

over a toll-free road and arrive at the southernmost point of mainland United States, Key West.

On the Keys, everyone fishes—from piers, from the bridges that connect the islands, from small boats and charter craft. Fishing camps, motels and resort establishments have sprung up all along the route in recent years so there is no difficulty in finding suitable accommodations. Informality and relaxation are universal here and, although the Keys are booming, they are still dominated by the spirit of mañana.

Homestead, 30 miles below Miami, is the gateway to the Keys. It is in a rich agricultural area known as Redland District which produces 80 percent of the limes grown in the U.S., as well as a large tonnage of avocados, potatoes, tomatoes, beans, and other winter vegetables. The first of the Florida Keys, Key Largo, is also the largest. About 30 miles in length, the island contains several resorts, a golf course, marina, and some fishing communities.

Along the Chain

Next comes Tavernier, an increasingly popular fishing resort, which is named for a pirate, a reminder that piracy once flourished in these parts. Hunting for treasure presumably buried in the Keys is a popular hobby with skin divers as well as professionally equipped salvage teams.

About seven miles west of Tavernier, near Islamorada, is the Theater of the Sea, an interesting display of porpoises, sea turtles, sharks and other fish. McKee's Sunken Treasure Fortress displays treasure recovered from sunken galleons at Plantation Key.

Marathon has by recent growth been transformed into a thriving city, second largest on the Keys. Here there are elaborate motels and cabin colonies, several with swimming pools. This is a boating service center and a main headquarters for sport fishing.

Two miles below Marathon is the famous Seven Mile Bridge, one of the most notable engineering achievements in the building of the Overseas Highway.

Finally, at the very end of the chain of Continued on page 158a 6



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products to remember!

AURALGAN°

IN ACUTE OTITIS MEDIA SAFE AURALGESIC AND DECONGESTANT

OTOS-MOSAN°

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NOT JUST ANOTHER DECONGESTANT"

ANTI-INFLAMMATORY
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FOR INFECTIOUS

AND NON-INFECTIOUS

THROAT INVOLVEMENTS

D O H O CHEMICAL CORP., 100 VARICK ST., NEW YORK 13, N.Y.

control the tension-treat the trauma

.. Pathibamate 400

greater flexibility in the control of tension, hypermotility and excessive secretion in gastrointestinal dysfunctions

PATHIBAMATE combines two highly effective and well-tolerated therapeutic agents:

meprobamate (400 mg. or 200 mg.) widely accepted tranquilizer and ... PATHILON (25 mg.)—anticholinergic noted for its peripheral, atropine-like action, with few side effects.

The clinical advantages of PATHIBAMATE have been confirmed by nearly two years' experience in the treatment of duodenal ulcer; gastric ulcer; intestinal colic; spastic and irritable colon; lieltis; esophageal spasm; anxiety neurosis with gastrointestinal symptoms and gastric hypermotility.

Two dosage strengths—PATHIBAMATE-400 and PATHIBAMATE-200 facilitate individualization of treatment in respect to both the degree of tension and associated G.I. sequelae, as well as the response of different patients to the component drugs.

Supplied: PATHIBAMATE-400 — Each tablet (yellow, 1/2-scored) contains meprobamate, 400 mg.; PATHILON tridihexethyl chloride, 25 mg.

PATHIBAMATE-200 – Each tablet (yellow, coated) contains meprobamate, 200 mg.; PATHILON tridihexethyl chloride, 25 mg.

Administration and Dosage: PATHIBAMATE-400-1 tablet three times a day at mealtime and 2 tablets at bedtime.

PATHIBAMATE-200-1 or 2 tablets three times a day at mealtime and 2 tablets at bedtime.

Adjust to patient response.

Contraindications: glaucoma; pyloric obstruction, and obstruction of the urinary bladder neck.

islands, Key West stands as a tiny bit of the U.S., completely tropical and independent in its outlook on life. The streets are narrow, the pace is slow. The old wooden houses built by seafaring families of an earlier day are grey and weathered. Much Spanish is still heard in the city.

In this mile-wide, five-mile-long key, there are a good many things to do of a leisurely sort. One of the easiest for the tourist is to hop on the Conch Train Tour and see the

sights from a shaded comfortable car.

The Key West Lighthouse is one of the most powerful on the coast. At the Turtle Kraals, big sea turtles, mostly caught off the north coast of South America, are kept alive in a pool.

The restaurants specialize in Spanish dishes and seafood, and the tourist can sample a tempting shellfish stew or a turtle steak, usually served breaded like a cutlet. There are several versions of the native Key lime pie, too. And, of course, Key West crawfish, green turtle soup, jumbo shrimp, and stone crabs are other delicacies not to be missed.

Travel Notes

A roundup of travel and vacation news of current interest

- Tiny transistor radios are fast rivaling cultured pearls and silk kimonos as a favorite buy of American tourists in Japan. Sets of good quality are available for as little as \$20, reports the Japan Tourist Association. More costly models offer such features as both standard and short-wave receiving bands, extension speakers and (especially for tourists) built-in cameras.
- Now you can fly yourself around Denmark in a rent-a-plane. This new way of seeing Denmark and the Continent is being introduced by Scandinavian Rent-a-Plane Service, 47 Nyropsgade, Copenhagen, which has 25 American Cessnas of the latest model ready for tourists. Airports for private planes are located in all major tourist centers in Denmark. All you need to rent a plane is a pilot's license and evidence of more than 60 hours' flying time.
- The Irish Tourist Office offers two new booklets of interest to the prospective visitor. "Golf in Ireland" lists 212 Irish golf clubs, with details about each course, i.e., par score, whether or not the services of a pro are available, distance from the nearest town. "Irish Holiday Cities" is an illustrated 24-page book-

let which contains descriptions of cities, interesting historical data, information on what to do and see. Both booklets can be obtained by writing: Irish Tourist Office, 33 East 50th Street, New York 22, N. Y.

● Two luxury cruises by the new Rotterdam of the Holland-America Line — one to the Mediterranean and the other around the world —have been announced for the 1960-61 cruise season. The Mediterranean cruise has a 17-port itinerary, with minimum rates starting at \$1250. The world cruise will be of 77 days' duration at a minimum rate of \$2525.

TO OUR READERS: You are avid travelers—as statistics show—taking trips for pleasure and relaxation as well as to attend professional meetings in this country and abroad. In addition, you often prescribe travel for your patients. Thus, the purpose of this department is to give you concise, practical information about one of your strong interests—travel. As a special service, this section will carry each month a calendar of important forthcoming national and international medical meetings.



Suit the therapy to the condition remember this topical trio for personalized treatment

- each stops itch and inflammation quickly
- each instantly restores and maintains the normal protective acid pH



the best therapeutic beginning in acute skin inflammation TABLETS OR POWDER PACKETS pH 4.2

The Original Modernized Burow's Solution

convenient wet dressings stay moist longer...maintain constant pH...speed healing...reduce inflammation.

Tablets in containers of 12, 100, 500, 1000. Powder Packets in boxes of 12 and 100.



maximum steroid benefits at lower dosage-lower cost

CREME OR LOTION pH 4.6
Hydrocortisone Free Alcohol in ACID MANTLE®

Most universally employed anti-inflammatory steroid for topical use.

1/2 % hydrocortisone in exclusive ACID MANTLE vehicle "is about as effective as 1% in most conditions treated."2

1/2%, 1% or 2% hydrocortisone free alcohol in water-miscible ACID MANTLE vehicle. In 1/2 ounce squeeze bottles, each with special soft plastic ear-applicator.



if infection complicates inflammation

CREME OR LOTION PH 4.6 Hydrocortisone Free Alcohol plus Neomycin in ACID MANTLE®

1/2% or 1% hydrocortisone free alcohol and 5 mg. per Gm. neomycin sulfate in exclusive water-miscible ACID MANTLE vehicle. In 1/2 ounce squeeze bottles, each with special soft plastic ear-applicator.

Jones, E. H.: Eye, Ear, Nose & Throat Month. 38:460, 1059.
 Lockwood, J. H.: Buil. A. Mil. Dermatologists 4:2, 1985.



DOME CHEMICALS INC. 125 West End Avenue/New York 23, N. Y. • Los Angeles/Montreal World Leader in Dermatologicals

Proven

in over five years of clinical use

Effective

FOR RELIEF OF ANXIETY AND MUSCLE TENSION

Outstandingly Safe

Simple dosage schedule produces rapid, predictable tranquilization without unexpected excitation. No cumulative effects, thus no need for difficult dosage readjustments. Does not produce ataxia, change in appetite or libido. No danger of hypotension, depression, Parkinson-like reactions, jaundice or agranulocytosis. Does not impair mental efficiency or normal behavior.

Miltown[®]

Usual dosage: One or two 400 mg. tablets t.i.d. Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; or as MEPROTABS*-400 mg. unmarked, coated tablets.

WALLACE LABORATORIES / New Brunswick, N. J.

TRADE-MARK

when diapers and drops are discarded it's time to change to Vi-Sol* chewable tablets or teaspoon vitamins

Vi-Sol chewable tablets and teaspoon vitamins, specifically formulated for the child over two, are the logical continuation of vitamin supplementation at the end of the "baby" period. The taste will show in their smiles.

DECA-VI-SOL,® 10 significant vitamins, POLY-VI-SOL,® 6 essential vitamins.

Chewable tablets, with fruit-like flavors, dissolve easily in the mouth...no swallowing problem... no vitamin aftertaste or odor. Teaspoon vitamins, orange-flavored liquid vitamins that children take readily.





Calendar of Meetings

A listing of important national and international medical conferences

JUNE

Miami Beach, Fla. American Medical Association, Annual Meeting, June 13-17. *Contact:* Dr. F. J. L. Blasingame, 535 North Dearborn St., Chicago 10, Ill.

Nassau, Bahamas. Postconvention Conference, June 18-25. *Contact:* Dr. B. L. Frank, P.O. Box 4037, Fort Lauderdale, Fla.

JULY

Stockholm, Sweden. International Congress Against Alcoholism, July 31-Aug. 5. Contact: Dr. Archer Tongue, Case Gare 49, Lausanne, Switzerland.

London, England. International Conference on Goiter, July 6-8. *Contact:* Dr. John C. McClintock, 149½ Washington Ave., Albany, N. Y.

New York, N. Y. International Congress on Occupational Health, July 25-29. *Contact:* Dr. Leo Wade, 15 West 51st St., New York, N. Y.

Bahia, Brazil. Pan-American Tuberculosis Congress, July 10-14. *Contact:* Prof. Fernando D. Gomez, 26 de Marzo, 1065, Montevideo, Uruguay.

AUGUST

Basle, Switzerland. International Congress of Internal Medicine, Aug. 24-27. Contact:

Secretariat, Sixth International Congress for Internal Medicine, 13, Steinentorstre, Basle, Switzerland.

Rio de Janeiro, Brazil. Interamerican Congress of Cardiology, Aug. 14-20. *Contact:* Dr. Hugo Alqueres, P.O. Box 1594, Rio de Janeiro, Brazil.

SEPTEMBER

West Berlin. World Medical Association, Sept. 15-22. Contact: Dr. Louis H. Bauer, 10 Columbus Circle, New York 19, N. Y.

Honolulu, Hawaii. Pan-Pacific Surgical Association, Sept. 28-October 5. *Contact:* Dr. F. J. Pinkerton, Suite 230, Alexander Young Building, Honolulu 13, Hawaii.

Tokyo, Japan. International Society of Hematology, Sept. 4-10. *Contact:* Dr. James L. Tullis, Suite 6D, 1180 Beacon St., Brookline 46, Mass.

Bonn, Germany. Congress of International Society of Audiology, Sept. 28-Oct. 1. *Contact:* General Secretary, 4, Rue Montvert, Lyon, France.

NOVEMBER

Nassau, Bahamas. Bahamas Medical Conference, Nov. 25-Dec. 16. *Contact:* Dr. B. L. Frank, P.O. Box 4037, Fort Lauderdale, Fla.

on Modutrol PEPTIC ULCER SYMPTOMS DO NOT REAPPEAR after-hours... after-stress... after-years!

Modutrol allows complete and lasting freedom from symptoms - without dietary restrictions. Of all agents tested, only Modutrol achieved the three rigid objectives for success in peptic ulcer therapy: relief of symptoms, healing of ulcer and prevention of recurrences or complications. Moreover, Modutrol met these criteria in over 96 per cent of all patients tested.1

Psychophysiologic Medication To Combat A "Psychovisceral Process'

Therapeutic efficacy of Modutrol is enhanced by its psycho-active component, Sycotrol-proved clinically to be not only more effective than either sedatives or tranquilizers, but ideally suited for ambulatory patients because they do not experience commonly encountered side effects of depression and habituation. Sycotrol, a psychotropic agent with antiphobic properties, acts against fears and anxieties that find outlets in visceral manifestations. Modutrol combines the psycho-active agent with preferred antacid and anticholinergic therapy to provide total management of the disorder.

FORMULA: Each Modutrol tablet contains; Sycotrol (pipethanate hydrochloride) 2 mg., scopolamine methylnitrate 1 mg., magnesium hydroxide 200 mg., aluminum hydroxide 200 mg.

DOSAGE: One tablet 8 or 4 times daily.

SUPPLIED: Bottles of 50 and 100 tablets.

CONTRAINDICATIONS: Contraindicated in glaucoma because of its anticholinergic components.

1. Rosenblum, L. A.: Report, Symposium on Peptic Ulcer, University of Vermont School of Medicine, September 24, 1959. Also available: Sycotrol tablets 8 mg. Bottles of 100 tablets.



TREED & CARNEICK Kenilworth, New Jersey



Psycho - physiologic Management

When the Target Organ of Fear-anxieties is the G.I. Tract and Peptic Ulcer Results.



MODERN Therapeutics

New therapies and significant clinical investigations abstracted from other journals.

Emotional Disturbances of Burned Children

"Of 198 child patients who had severe burns two to five years previously, 81% showed signs of emotional disturbance according to their mothers. This incidence of disturbance was in marked contrast to that noted in the patients' 608 siblings (7%) and in a random control group of 50 (14%). Of many factors examined, only the lack of parental visiting to children under 5 years old was found to be significantly related to disturbance. It is concluded that in most cases the disturbances resulted from various combinations of factors. If the incidence of disturbance is to be lessened, more attention should be paid to the emotional needs of the children and the part parents can play in treatment."

JOAN WOODWARD Brit. Med. J. (1959), I: 1012-13

Evaluation of Hydrochlorothiazide

Hydrochlorothiazide appears to be similar but more potent than chlorothiazide as a diuretic and an antihypertensive agent. Its effects were studied in connection with ten patients with stable essential hypertension, but without clinical evidence of edema. The individuals were patients in the metabolic ward at Mount Sinai Hospital, Cleveland; they had had no recent antihypertensive therapy, and were on unrestricted diets. After appropriate tests and determinations, the patients were given 50

mg. of hydrochlorothiazide three times a day for one week. They were then discharged after being given the same dosage regimen, and examined at weekly intervals in the outpatient department. The drug was well tolerated, and no major toxic effects were noted. The nonprotein nitrogen level showed a rise in all of the patients, but in eight of them it returned to normal within one week. The authors report that in the entire group, there was a significant lowering of blood pressure and, though the patients were clinically edema-free, they all experienced an initial diuresis of a few days' duration. Hydrochlorothiazide appears to the authors to be a potent diuretic as well as antihypertensive agent. Its main action is to produce sodium and chloride diuresis, with minor effects on potassium. The fall in urinary sodium and chloride levels while the patients were on a low-salt diet probably represents renal conservation of sodium and chloride in depleted state. On general diets, the sodium and chloride excretions were above base-line levels. In hypertensive patients, the mode of action of the drug could be, in part, related to the sodium diuretic action, depleting the body of sodium stores and perhaps maintaining the patient on a low-salt diet despite general food intake.

VICTOR VERTES, M.D., and MERVYN SOPHER, M.D. J. A. M. A. (1959), Vol. 170, No. 11, P. 1271

Continued on page 166a

the cough is quiet and the



thanks to

PHENERGAN

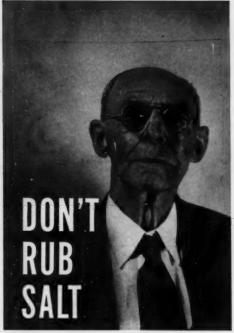
EXPECTORANT

Promethazine Expectorant, Wyeth
With Codeine Plain (Without Codeine)
expectorant · antihistaminic
sedative · topical anesthetic

non-narcotic formula too...
codeinelike antitussive action without codeine's side-effects.
Pediatric PHENERGAN EXPECTORANT (Promethazine Expectorant with Dextromethorphan, Wyeth)

For further information on prescribing and administering PHENERGAN Expectorant see descriptive literature, available on request.

Wyeth Laboratories Philadelphia 1, Pa.



IN HIS CARDIAC WOUND

Modern saluretics may seem to have made unlimited salt intake possible for cardiac and hypertensive patients. Yet despite the improvements in diuretic therapy, sodium restriction is still important in the prophylaxis of edema. The wise physician does not add needlessly to the burden of his patient, nor test unnecessarily the power of the drugs he prescribes. It makes good sense to him to prescribe DIASAL—which looks, tastes and flavors food exactly like salt... but is sodium free.

Diasal contains potassium chloride, glutamic acid and inert ingredients. Supplied in shakers and 8 oz. bottles.

prescribe

DIASAL

TOUGFRA

E. Fougera & Co., Inc. . Hicksville, New York

A New Vasodilating and Antispasmodic Agent

The authors report their experience with Vasodilan (isoxsuprine hydrochloride), a new vasodilating drug which is effective by direct action to relax arterial smooth muscle. Effective orally as well as parenterally, according to the report, Vasodilan increases the caliber of both normal and diseased blood vessels, especially the deep vessels of the muscle, skin and subcutaneous tissues, and intracranial vessels. Little or no cardiac effect is produced by oral doses at clinical levels. There is no significant effect on blood sugar level or carbohydrate metabolism, indicating safety of Vasodilan in diabetics. Relaxation of uterine smooth muscle without hormonal action was also demonstrated.

Review of the literature revealed that Vasodilan produced substantial, and frequently complete, symptomatic relief in diseases characterized by peripheral vascular insufficiency, including arteriosclerosis, endoarteritis obliterans, Buerger's disease, embolism, and Raynaud's disease. In their own studies of 46 such patients, the authors noted objective signs of improvement in 39 (85 percent) without untoward effects. According to the literature on Vasodilan in primary dysmenorrhea, nearly all patients reported some relief of pain and cramping in about 90 percent of the menstrual cycles studied. The authors summarize reports on Vasodilan in cerebrovascular insufficiency and neurologic disorders, which state that the drug increased alertness, activity, and interest in such disorders as hemiplegia, multiple sclerosis (symptomatic relief), and cerebral arteriosclerosis.

The authors conclude that Vasodilan appears likely to be useful in managing arterial insufficiency associated with peripheral arterial disease, uterine disorders characterized by hypermotility (e.g., primary dysmenorrhea, threatened abortion, premature labor, and uterine tetany), and cerebral vascular insuffi-

BEFORE: Severe, persistent dermatomycosis of several months duration.



NOW AVAILABLE
WHITE'S VITAMIN
A & D OINTMENT
with Prednisolone



AFTER: Same patient after two weeks therapy with Vitamin A and D Ointment with Prednisolone. Medication applied twice daily.

White's Vitamin A and D Ointment is now available with Prednisolone (0.5 per cent) in a lanolin-petrolatum base. The local anti-inflammatory and anti-pruritic effects of prednisolone augment the healing, soothing and protective effects of White's Vitamin A and D Ointment. For dermatoses caused by thermal or chemical irritants, common allergic skin disorders and nonspecific pruritus ani and vulvae. Supplied in 10 and 25 Gm. tubes.

White Laboratories, Inc., Kenilworth, New Jersey.



Unique benefit of APRESOLINE® helps reverse advancing hypertension

Apresoline contributes an exclusive action to the antihypertensive program: It is the only therapeutically acceptable agent to increase renal blood flow and relax cerebral vascular tone while it lowers blood pressure. With improved kidney function, advancing hypertension can often be halted—or even reversed.

Apresoline is indicated for moderate to severe and malignant hypertension, renal hypertension, acute glomerulonephritis, and toxemia of pregnancy.

When less potent drugs are not fully effective, when renal function must be improved, Apresoline is a logical prescription. Except in rare instances side effects are not a serious problem when the recommended maximal daily dosage (400 mg.) is not exceeded.

SUPPLIED: Tablets, 10 mg., 25 mg., 50 mg.

APRESOLINE® hydrochloride (hydralazine hydrochloride ciba)



ciency. They suggest that prophylactic use might be advisable to prevent vascular insufficiency in such patients as elderly diabetics. Lack of significant side effects is noted with recommended oral dosage.

> F. KAINDL, S. S. SAMUELS, D. SELMAN and H. SHAFTEL Angiology (1959), 10: 185-192

Chlorambucil

Chlorambucil is an analogue of nitrogen mustard that may be administered orally. Seventy-five patients were included in a study of the drug at Memorial Center for Cancer and Allied Diseases, New York. Of these, the diagnoses were Hodgkin's disease, chronic lymphocytic leukemia, lmyphosarcoma, reticulum-cell sarcoma, and chronic myelocytic leukemia. In each instance, the diagnosis was definitely established. The initial daily dose, taken one hour before breakfast, was either 0.1 or 0.2 mg. per kilogram of body weight. At the end of three weeks, the dosage was adjusted if necessary. Results of therapy were summarized as: Hodgkin's disease, a marked response in 34.4 percent, in 25 percent a moderate response; chronic lymphocytic leukemia, a marked response in 31.6 percent, and a moderate response in 31.6 percent; lymphosarcoma, an excellent response in all patients; chronic myelocytic leukemia, 66.7 percent, marked and the remainder, moderately affected, and the response in the patients with reticulum-cell sarcoma was 40 percent. The authors found chlorambucil to be a more satisfactory agent to use clinically since there were fewer problems with absorption, less variation in dose response, and fewer episodes of unexpectedly severe bone-marrow depression. Because of the manner in which the drug was employed, the onset of action was slow, and the marrow depressant effect was gradual. The authors state that there were no cases of unpredicted or unexpected blood depression, but there was Continued on page 174a

2/2796 HD



When blood pressure must come down

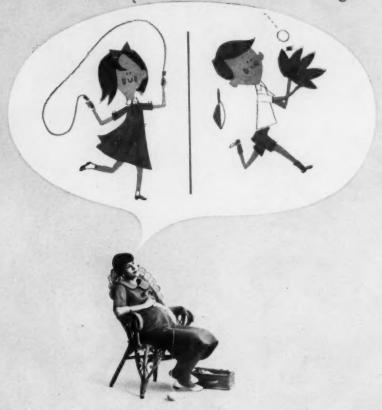
When you see symptoms of hypertension such as dizziness, headache, and fainting your patient is a candidate for Serpasil-Apresoline. Even when single-drug therapy fails, Serpasil-Apresoline frequently can bring blood pressure down to near-normal levels, reduce rapid heart rate, allay anxiety.

SUPPLIED: Tablets #2 (standard-strength, scored), each containing 0.2 mg. Serpasil and 50 mg. Apresoline hydrochloride; Tablets #1 (half-strength, scored), each containing 0.1 mg. Serpasil and 25 mg. Apresoline hydrochloride.

SERPASIL-APRESOLINE

C I B A SUMMIT, N. J.

51 to 49...it's a boy!



94 to 6 BONADOXIN stops morning sickness

When she asks "Doctor, what will it be?" you can either flip a coin or point out that 51.25% births are male. But when she mentions morning sickness, your course is clear: BONADOXIN.

For, in a series of 766 cases of morning sickness, seven investigators report excellent to good results in 94%. More than 60 million of these tiny tablets have been taken. The formula: 25 mg. Meclizine HCl (for antinauseant action) and 50 mg. Pyridoxine HCl (for

metabolic replacement). Just one tablet the night before is usually enough.

BONADOXIN—DROPS and Tablets—are also effective in infant colic, motion sickness, labyrinthitis, Meniere's syndrome and for relieving the nausea and vomiting associated with anesthesia and radiation sickness. See PDR p. 795.

Projection from Vital Statistics, U.S. Government Dept. HEW, Vol. 48, No. 14, 1958, p. 398.
 Modell, W.: Drugs of Choice 1958-1959, St. Louis, C. V. Mosby Company, 1958, p. 347.



New York 17, New York Division, Chas. Pfizer & Co., Inc. Science for the World's Well-Being

Preludin°

hydrochloride

Through the potent appetite-suppressant action of Preludin, the success of anti-obesity treatment becomes more assured—adherence to diet becomes easier-discomfort from side reactions is unlikely.

In Simple Obesity Preludin produces 2 to 5 times the weight loss achievable by dietary instruction alone.1,2

In Pregnancy Weight gain is kept within bounds, without danger to either mother or fetus.3

In Diabetes Insulin requirements are not increased; they may even decrease as weight is lost.4

In Hypertension Preludin is well tolerated and blood pressure may even fall as weight is reduced.1

Patients taking Preludin usually experience a mild elevation of mood conducive to an optimistic and cooperative attitude, thereby counteracting the lassitude otherwise resulting from a reduced caloric intake. Thus, consistent weight loss over a prolonged period becomes more assured.

Preludin® Endurers, T.M. brand of phenmetrazine hydrochloride: prolonged-action tablets of 75 mg. for once daily administration; and scored, square, pink tablets of 25 mg for b.i.d. or t.i.d. administration.

Under license from C. H. Boehringer Sohn, Ingelheim.
References:
(1) Barnes, R. H.: J. A. M. A. 166:898, 1958, (2) Ressler, C.: J. A. M. A. 165:135, 1957. (3) Birnberg, C. H., and Abitbol, M. M.: Obst. & Gynec, 11:463, 1958. (4) Robillard, R.: Canad. M. A. J. 76:938, 1957.

Geigy, Ardsley, New York



reduces the problems of reducing

whether obesity is simple or complicated



Geigy

a new class of drug for the relief of pain



analexin

the first analgomylaxant a single chemical that is both a general non-narcotic analgesic and an effective muscle relaxant

Analexin is a new synthetic chemical^{1,2} which produces (1) analgesia by raising the pain threshold and thus decreasing perception of pain and (2) muscle relaxation by selectively depressing polysynaptic transmission (interneuronal blockade), abolishing abnormal muscle tone without impairing normal neuromuscular function. The analgesic potency of one tablet is clinically equivalent to 1 grain of codeine; yet, Analexin is neither narcotic nor is it narcotic-related. Its muscle relaxant effect is comparable to the most potent oral skeletal muscle relaxants available.^{3,4}

Analexin for relief of pain and skeletal muscle tension. Each tablet contains 200 mg. of phenyramidol HCl. Dosage—1 tablet every 2-4 hours or as needed.

Analexin-AF for relief of pain and skeletal muscle tension complicated by fever and/or inflammation. Each tablet contains 100 mg. of phenyramidol HCl and 300 mg. of aluminum aspirin. Dosage—2 tablets every 4 hours or as required.

in low back pain, arthritis and other musculoskeletal disorders... where pain makes tension and tension makes pain

stops both effectively

Phenyramidol HCI (Analexin) was evaluated by Batterman, et al.⁵ in a series of 118 ambulatory patients with various painful musculoskeletal disorders. These patients were observed for periods as long as 22 weeks. The authors conclude: "Not only is satisfactory relief of painful states achieved in the majority of patients regardless of etiology and duration of pain, but there is also no evidence suggestive of cumulative toxicity. Furthermore, in contrast to codeine and meperidine, the likelihood of untoward reactions occurring in ambulant patients is not high. This is a decided advantage since the control of pain in the ambulant patient with chronic pain is a major clinical problem."

In other studies, Bealer⁶ used Analexin in 26 cases of musculoskeletal pain and observed good or very good results in 11 patients; fair results in 14 and 1 case was unsatisfactory. Fifteen other patients were given Analexin-AF, and good or very good results were obtained in 13 out of 15 of these cases.6,7

Meister IRWIN, NEISLER & CO.

Decatur, Illinois

BIBLIOGRAPHY: 1. Gray, A. P., and Heitmeier, D. E.; J. Am. Chem. Soc. 81:4347, 1959. 2. Gray, A. P., et al: J. Am. Chem. Soc. 81:4351, 1959. 3. O'Dell, T. B.; Wilson, L. R.; Napoli, M. D.; White, H. D., and Mirsky, J.-H.: J. Pharmacol. & Exper. Therap. 128:65, 1960. 4. O'Dell, T. B.; Wilson, L. R.; Napoli, M. D.; White, H. D., and Mirsky, J. H.: Fed. Proc. 18:1694, 1959. 5. Batterman, R. C.; Grossman, A. J., and Mouratoff, G. J.; Am. J. Med. Sc. 238:315, 1959. 6. Bealer, J. D.: Linical Report 511:592, April 1, 1959. 7. Stern, E.: Clinical Report 511:599, May, 1959. (Clinical Reports in file of Medical Department, Irwin, Neisler & Co.)

raises pain threshold relaxes muscle tension



when your standing orders specify...

TUCKS

Soft ready-to-use cotton flannel pads saturated with witch hazel (50%) and glycerine (10%), pH about 4.6.

As a dressing . . . TUCKS cools and smooths traumatized tissue . . . without occlusive vehicles or "-caine" type anesthetics.

In the hospital, Tucks can be kept by the bedside for frequent, easy changing by the patient or nurse.

As a wipe ... TUCKS takes the trauma out of cleansing tender tissue and encourages more thorough hygiene.

TUCKS may also be sent home with patient for continuation of care.

jars of 40 and 100.

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greater freedom from gastrointestinal distress and only mild and occasional nausea. Further, the effects on disease usually appeared by the third week of therapy, but maximum results appeared after a period of several weeks. Maintenance therapy in the chronic leukemias is feasible with the proper adjustment of dosage. Untoward side-effects are few, but close observation of the hemoglobin, white-cell count and platelet level is mandatory.

DANIEL G. MILLER, M.D. ET AL. New Eng. J. of Med. (1959), Vol. 261, No. 11, P. 525

Use of Methindethyrium in Hypertension

The frequency of side-effects when ethiquinium was used as the sole modality of of therapy for hypertensive states suggested that there might be value in combining an unsymmetrical bis-quaternary ammonium salt with cryptenamine, an antihypertensive agent, and reserpine. Methindethyrium chloride, structurally related to both ethiquinium and chlorisondamine, was chosen for a study of its effects when administered to 30 patients suffering from arterial hypertension. Twenty-one members of the group had not received the cryptenaminereserpine therapy, while the remainder were taking the combined drugs when the study began. All other therapy was discontinued, and the 30 patients were started on C-40 coated tablets which contained methindethyrium chloride, 100 mg., cryptenamine, 0.1 mg., and reserpine, 0.08 mg. The patients took one tablet after breakfast and one at bedtime. After several days, a mid-day dose was added, and the daily ration revised upward at the rate of one tablet every 3 to 5 days. The duration of therapy was approximately 14 weeks. Only eight patients in the group reported side-effects of a mild and transitory nature. According to the report, most patients spontaneously remarked upon a sense of well-being. Hypertensive headache was alleviated in all patients who

Continued on page 177a

anticholinergic
KEEPS
THE STOMACH
FREE OF PAIN

tranquilizer

KEEPS

THE MIND OFF

THE STOMACH



Milpath acts quickly to suppress hypermotility, hypersecretion, pain and spasm, and to allay anxiety and tension with minimal side effects.

> AVAILABLE IN TWO

POTENCIES:

Milpath-400 — Yellow, scored tablets of 400 mg. Miltown (meprobamate) and 25 mg. tridihexethyl chloride. Bottle of 50.

Dosage: 1 tablet t.i.d. at mealtime and 2 at bedtime.

Milpath-200 — Yellow, coated tablets of 200 mg. Miltown (meprobamate) and 25 mg. tridihexethyl chloride. Bottle of 50.

Dosage: 1 or 2 tablets t.i.d. at mealtime and 2 at bedtime.

Milpath

®Miltown +anticholinergic

WALLACE LABORATORIES New Brunswick, N. J.





When abnormal cellular metabolism accompanies stress conditions

Hesperidin, Hesperidin Methyl Chalcone, or Lemon Bioflavonoid Complex are prescribed as therapeutic adjuncts for control of abnormal cellular activity, and capillary and vascular damage associated with many stress conditions.

These stress conditions may be caused by nutritional deficiencies, environment, drugs, chemicals, toxins, virus or infection.

SUNKIST AND EXCHANGE BRAND Lemon Bioflavonoid Complex and Hesperidins are available to the medical profession in specialty formulations developed by leading pharmaceutical manufacturers.

Sunkist Growers

PRODUCTS SALES DEPARTMENT PHARMACEUTICAL DIVISION Ontario, California

Control of Habitual Abortion

Disturbed capillary permeability and lowered capillary resistance, as well as the tendency toward edema and fluid retention, are well recognized in pregnancy (1, 2, 3, 4). The bioflavonoids have been shown effective in controlling the susceptibility to edema in pregnancy (5) and their routine prenatal use has been suggested (6).

Ecchymotic areas resulting from bruises and positive capillary fragility tests have frequently been observed in habitual aborters (7). Patients having a history of two or more spontaneous abortions have shown a marked improvement in fetal salvage after the addition of Hesperidin (a citrus bioflavonoid), ascorbic acid and other factors to the therapeutic regimen (8, 9, 12, 14, 15, 16). Other investigators have reported extensive use of the citrus bioflavonoids in the management of pregnancy with excellent results (18, 19, 20).

Observations include a reduction in severity or prevention of erythroblastosis fetalis in Rh-negative patients when *Hesperidin* (7) or other citrus bioflavonoids (23, 24) were administered.

The rationale of Hesperidin and other citrus bioflavonoids—in conjunction with vitamin C, nutritional factors or other therapeutic agents—as adjuncts in the management of pregnancy and its complications, spontaneous abortion and erythroblastosis fetalis, is based on the premise and observation that capillary involvement may be a contributing factor.

NOTE: For bibliography (B-688) write Sunkist Growers, Pharmaceutical Division, 720 East Sunkist Street, Ontario, California. had that symptom. Dyspnea, fatigue, and precordial oppression were similarly lessened. In three patients overt congestive heart failure, previously refractory to conventional management, cleared coincident with the depressor response; in four others, digitalization was not required. Dr. Cohen concludes that no adverse effect in the metabolic control of four patients with concomitant diabetes was apparent.

BURTON M. COHEN, M.D. American Practitioner (1959), Vol. 10, No. 6, P. 983

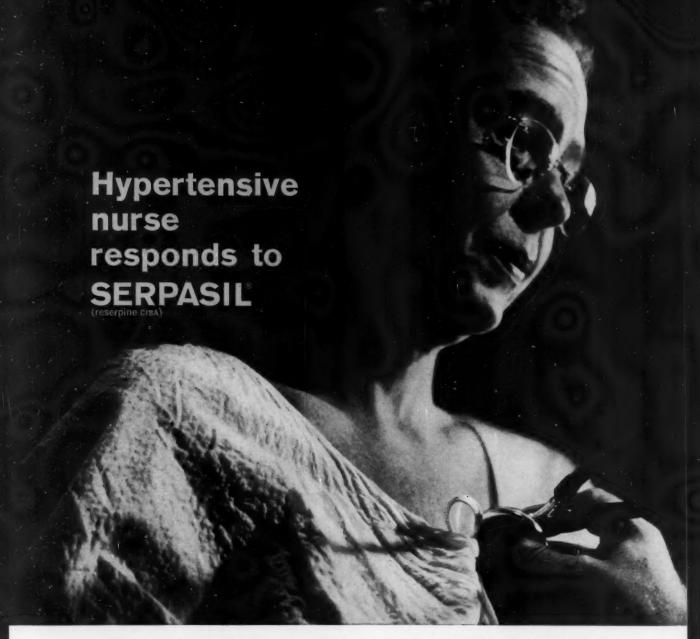
Social Factors in the Prediction and Treatment of Emotional Disorders of Pregnancy

"1. Two separate studies were performed related to the hypothesis that social and environmental factors have considerable importance in the emotional disorders of pregnancy and childbearing. In the first, on the basis of patients' responses to a questionnaire, an attempt was made to predict their later emotional reaction during 4 months after delivery. In the second, two methods of psychotherapy were compared in an experimental and a control group, one using dynamic therapy alone, the other with greater attention to the amelioration of social strains.

2. A relatively high percentage, 30 percent, of normal women showed some degree of emotional upset after delivery of a normal child. This may be related to the type of stressful living found in a rapidly growing suburb.

3. The social history prediction study was quite successful at a very high level of statistical significance. Higher prediction scores were generally associated with greater emotional disturbance. Psychiatric maternity patients had higher scores as a group, the most severely ill psychiatric maternity patient had the highest scores.

4. The therapy study was also successful and statistical calculations indicate that the Continued on page 180a



Antihypertensive and calming effects produce good results

Mrs. E. Y., age 45, is active and vigorous. She is a happy woman with many interests: antiques, baking, knitting. Trained as a nurse, she has been married 18 years and, until 7 years ago when her husband was promoted, worked in a doctor's office.

On April 8, 1959 she had a complete physical examination. There was a history of "migraine" headaches—probably due to tension—slight weight gain, and minor gynecologic problems. Laboratory findings and EKG were normal. She had mild, essential hypertension.

Herphysician prescribed Serpasil —0.25 mg. at bedtime. Blood pressure responded as follows:

April 8 150/110 mm. Hg
May 10140/90
June 12
July 20
November 11 116/70
(Serpasil discontinued)
December 12 140/80

Her physician reported: "In view of the slight blood pressure rise [after discontinuation of Serpasil] it is probable that intermittent Serpasil therapy will be necessary indefinitely."



Calmer and normotensive, Mrs. Y. notes: "With Serpasil I don't care that the furniture doesn't get dusted every day."

Photos used with patient's permission

SUPPLIED: SERPASIL Tablets, 0.1 mg., 0.25 mg. (scored) and 1 mg. (scored).

Complete information available on request.



ANXIETY: A PRIME FACTOR IN HYPERTENSION

Wilfred Dorfman, M.D., F.A.C.P.

President, Academy of Psychosomatic Medicine
Assistant Attending Physician,

Dept. of Medicine, Maimonides Hospital of Brooklyn
Senior Psychiatrist, Brooklyn State Hospital
Clinical Instructor in Psychiatry,
New York School of Psychiatry

My experience, and it is not unique, indicates that emotional factors play a vital role in the pathogenesis, symptomatology, prognosis and treatment of hypertension.

Anxiety, for example, can produce vasoconstriction, thereby raising blood pressure. And anxiety-induced blood pressure elevations that are transient in the late teens and early twenties frequently become sustained in the forties and fifties.

Hypertension "symptoms" such as headache, dizziness and fatigue (which often are not directly related to the level of the blood pressure) may actually stem from unresolved tension, as may associated symptoms like tachycardia, excessive perspiration and cold hands and feet. For the most part, high blood pressure patients are not—as popular conceptions would have us believe—bellicose, expansive individuals. Aggressive they may be, but their aggressive impulses are, characteristically, turned inward. Clinically one usually finds they are too tranquil, too self-controlled. Beneath their placid exteriors lie tensions that may well be responsible for much of their symptomatology.

Emotions affect prognosis in hypertension, too. It appears that acute psychic stress is one of the triggers that suddenly sets off the malignant phase in patients whose hypertension has run a long benign course.

How to "Listen" for Anxiety

Because of its multiple effects, it is important to assess the degree of anxiety in the hypertensive patient. What he says and how he says it are significant indicators. Here are some of the things to listen for: Is the patient's speech too rapid, incessant, occasionally incoherent? Is his story disorganized? Does he relate multiple somatic complaints, which follow no known disease pattern? Does he flit from one symptom to another without pause, or does he elaborate on each in infinite detail? Does he reveal feelings of panic which are associated with his symptoms?

These are all signs suggestive of anxiety. By being alert for them the physician becomes more sensitive to his patient's needs. Thus he will avoid casual, inadvertent remarks which in anxious, over-reactive hypertensives may be prejudicial. Equally important, he will be able to plan a therapeutic program that will control his patient's anxiety-induced symptoms as well as his high blood pressure.



she can choose her own gown...

but she needs your help to plan her family

Delfen

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Preceptin[®]

THE SPERMICIDAL GEL WITH BUILT-IN BARRIER

PRESCRIBED WITH CONFIDENCE FOR SIMPLE, EFFECTIVE CONTRACEPTION

results were quite significant. A psychotherapeutic approach in which the therapist worked not only with the patient's personal psychodynamics but also pointed out social strains and recommended their improvement was more effective in married women patients generally but was particularly so in the maternity group when compared to a control group of nonmaternity psychiatric married women patients.

Psychiatric maternity patients subjectively did better, required fewer sessions, continued treatment more often after an initial consultation, and required less hospital care when social strains were alleviated along with their insight therapy.

Prediction scores and possibility of environmental improvement seemed highly related to prognosis.

 A typical case history with its management was presented. The social factors that relate to a woman's adjustment to the experience of maternity were discussed.

7. Suggestions were presented to the obstetrician and the general practitioner for recognizing potentially ill women from their background histories. The important social readjustments were outlined that the physician may recommend to his patient with the hope of, first, preventing or minimizing some disorders and, second, more readily assisting the patients who already have developed emotional complications of pregnancy. Such an approach may not work such profound personality changes in patients as are accomplished by intensive psychoanalysis, but many potential psychiatric patients may be helped through a very stressful adjustment period.

8. An experiment has been begun of introduction of this social information into antenatal classes with the hypothesis that such an educational procedure may serve a prevention function."

> RICHARD E. GORDON, M.D., and KATHERINE K. GORDON, B.S. Am. J. Obstet. and Gynec. (1959), Vol. 77, No. 5, P. 1081 Continued on page 182a

Sterazolidin®

a well balanced therapy in all forms of rheumatic disorder

The combined action of phenylbutazone and prednisone in Sterazolidin results in striking therapeutic benefit with only moderate dosage of both active agents.

In long-term therapy of the major forms of arthritis, control is generally maintained indefinitely with stable uniform dosage safely below that likely to produce significant hypercortisonism.

In short-term therapy of more acute conditions Sterazolidin provides intensive anti-inflammatory action to assure early resolution and recovery.

Sterazolidin®, brand of prednisonephenylbutazone: Each capsule contains prednisone, 1.25 mg.; Butazolidin® (brand of phenylbutazone), 50 mg.; dried aluminum hydroxide gel, 100 mg.; magnesium trisilicate, 150 mg.; homatropine methylbromide, 1.25 mg. Bottles of 100.

Geigy, Ardsley, New York



Geigy

Scleroderma Treated with Edathamil

Although scleroderma is included in the group of collagen diseases, it is unlike the others in that it does not respond to steroids. However, recent reports have appeared on a new chelating agent, edathamil disodium (Disodium Versenate), in relation to cases of advanced scleroderma. According to reports, the intravenous administration of the drug in protracted courses led to definite clinical improvement, with dissolution of large quantities of pathologic calcification. Twenty-three patients with scleroderma of varying degrees were selected for treatment. Twenty cases showed the predominant features of acrosclerosis; two were classified as diffuse scleroderma, and one as widespread morphea. All patients were hospitalized. They were given edathamil intravenously in courses extending over a threeweek period. The recommended dosage that was followed was 50 mg. of edathamil per kilogram of body weight daily for five days, followed by a two-day rest period. The usual daily dose is 3 Gm. In this study, it is reported that nine patients showed improvement as measured by functional performance tests, esophageal motility studies, and over-all clini-

MEDICAL TEASERS

Answer to puzzle on page 53a

D	E	R	M	0	1	D				5					
1	3	P	C	L	S	E		0	L	Ξ	0	s	U	S	
5	8		T	E	A	M		R	E	3	0		8	T	
E	0	N		A	A	A				K					
A	L	0	E		C	R	A	3	S		P	0	0	R	
S	υ	R	G	E		C	1	8		H	E	L	L	0	
E	5	2	A	R	С	H		2	E	U	Т	R	A	L	
1				£	A				G	G M					
R	A	0	1	C	L	E		E	G	0	T	1	S	T	
8	2	A	C	T		C	8	C		R	A	T	E	R	
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A	R	ε		1	R	L		0	M	A		5	0	7	
P	G		0	L	E	0		L	E	7	0		P	C	
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		5						C	R	1	5	T	A	L	

cal evaluation. Three patients were given a second course of edathamil after an interval of seven weeks. During the course of treatment, the patients' subjective evaluations were noted periodically. It was further stated that none of the patients became worse during treatment, and the majority believed themselves to be improved. At the present time, the use of edathamil in the systemic forms of scleroderma seems justified. The longest of the follow-up periods has been two years.

SIGFRID A. MULLER, M.D. ET AL. A. M. A. Arch. of Derm. (1959) Vol. 80, No. 2, P. 187

Tolbutamide for the Diabetic Patient

The authors were interested in observing the applicability and practicability of the hypoglycemic agent, tolbutamide (Orinase), in a general diabetic clinic population. Due to the type of persons using the clinic-aged and infirm, foreign born with little or no English, etc.—an effective oral preparation was greatly to be desired. Diabetic patients selected for the study met the requisites of: (1) use of 40 units or less of insulin daily, (2) had no record of repeated ketosis or acidosis, (3) no history of hepatic dysfunction, and (4) responded to a loading dose of 3 Gm. of tolbutamide by a 25 percent or greater fall in fasting blood sugar four hours after administration. Insulin was omitted for 48 hours prior to the test. The dosage regimen for tolbutamide was: 3 Gm. in divided doses for three days; 2 Gm. in divided doses for the next three days, and 1 Gm. on the seventh day. In patients requiring more than 25 units of insulin, the latter was gradually reduced over a period of four days as tolbutamide was instituted, so that by the fifth day they took no more insulin. The maintenance dose was adjusted according to the laboratory report. From the results of the study the authors conclude that the oral hypoglycemic agent used was a boon to the aged, infirm,

Continued on page 184a

Fostex® treats their



while they wash



completely emulsifies and washes off excess oil from the skin. penetrates and softens comedones, unblocks pores and facilitates removal of sebum plugs.

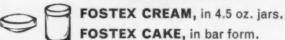
removes papule coverings and permits drainage of sebaceous glands.

Patients like Fostex because it is so easy to use. They simply wash acne skin 2 to 4 times a day with Fostex Cream or Fostex Cake, instead of using soap.

Fostex contains Sebulytic[®],* a combination of surface-active wetting agents with remarkable antiseborrheic, keratolytic and antibacterial actions...enhanced by sulfur 2%, salicylic acid 2%, and hexachlorophene 1%.

*sodium lauryl sulfoacetate, sodium alkyl aryl polyether sulfonate and sodium dioctyl sulfosuccinate.

Fostex is available in two forms-



Fostex Cream and Fostex Cake are interchangeable for therapeutic washing of the skin. Fostex Cream is approximately twice as drying as Fostex Cake.

Fostex Cream is also used as a therapeutic shampoo in dandruff and oily scalp.

Write for samples.

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incapacitated, allergic, or insulin-recalcitrant patient whose degree of diabetes justified its use. Further they state that the response to tolbutamide was equally good or an improvement over insulin in all but eight of the 77 patients. No toxic effects were noted. No patient developed ketosis or acidosis. The patient acceptance was good.

JULIUS LEVINE, M.D., et al. N. Y. S. J. Med. (1959), Vol. 59, No. 13, P. 2567

Chlorothiazide in Hypertensive Patients

Chlorothiazide (Diuril) is a potent drug in the treatment of hypertension, and is widely used for that purpose. The drug produces a hypotensive effect only in hypertensive persons. It also has diuretic and saluretic effects. In using any hypotensive agent, a knowledge of the variables that will be encountered is important, and an adequate evaluation of the severity of the disease should be made. A se-

ries of 65 patients with hypertension without edema was studied. According to the report a definite hypotensive effect was observed in 80 percent of the patients, the effect being more pronounced in patients with severe hypertension, and in those receiving ganglionic blocking agents. Of 23 patients who had formerly required ganglionic blocking agents, 12 were able to discontinue that therapy, and six were able to reduce the dosage by 50 percent or more. It was found that chlorothiazide administered orally in doses of 500 mg. daily can produce a significant change in the serum potassium level. Forty-three percent of the patients showed a drop in the serum potassium level. It is recognized that renal lesions may accompany potassium deficiency in man. There appears to be no means of predicting which patients will show potassium waste. In the present series, the authors state depletion occurred with or without impaired renal function. The symptoms of potassium deficiency may be minimal and their onset insidious. Further, it would seem that periodic determinations of the serum potassium level are necessary in any patient who is receiving chlorothiazide treatment for hypertension on a long-term basis.

> C. C. BARTELS, M.D. ET AL. J. A. M. A. (1959), Vol. 170, No. 15, P. 1796



"Pregnancy failures are severalfold more common in women with diabetes mellitus than in normal women. This excessive loss is limited almost exclusively to the period after the 28th week of gestation. Comparison of mortality figures shows little to suggest a significant decrease in the fetal mortality in recent years, and no one group advocating a specific method of management has been able to achieve results which are significantly superior to other clinics. Experience and teamwork seem to be the only factors which influence the ultimate outcome of such pregnancies.

Concluded on page 188a





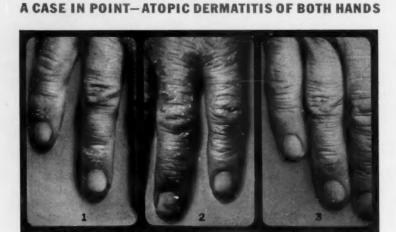
asthmatic...but symptom-free All day long, on the job or off, Tedral protects most asthmatic patients from bronchospasm, mucous congestion and the fear and embarrassment of recurrent seizures. One Tedral tablet, taken at the first sign of attack, blocks the acute phase. For prophylaxis, most patients can be effectively, safely and economically maintained in symptom-free security on just 1 or 2 Tedral tablets q.i.d.

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three-way comparative study demonstrates "full-healing effect" of HYDRO-TAR in acute & chronic dermatoses

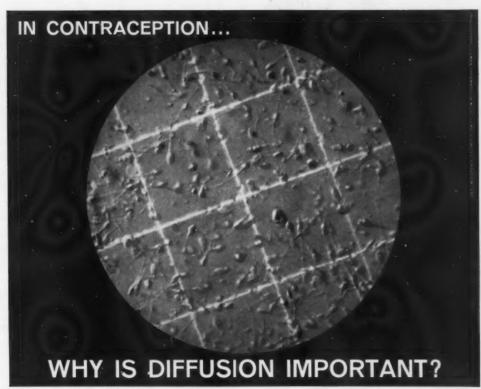


1. Hydrocortisone alone suppresses inflammation. 2. Coal tar alone corrects eczematous manifestations. 3. Both agents combined in HYDRO-TAR speed complete early healing. Mutually supportive action produces the "full-healing" effect. Presence of hydrocortisone permits well-tolerated coal-tar therapy even during the acute phases of severe dermatoses.

 $Dosage\colon$ Apply by gentle massage to affected areas 3 or 4 times a day; 0.5% for moderately severe dermatoses or maintenance – 1.0% for severe dermatoses.

 $Supplied\colon 15$ Gm. tubes in 0.5% and 1.0% strengths. Samples and literature sent on request.

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Because the active ingredients of a spermicidal preparation must diffuse rapidly into the seminal clot and throughout the vaginal canal to be clinically effective. Lanesta Gel offers this dual protection. Its four spermicidal agents quickly invade the clot to stop the main body of sperm. It spreads evenly and quickly throughout the vaginal canal—seeks out every wrinkle and fold that may offer concealment to sperm. With this rapid diffusion, your patient receives full benefit of the swift spermicidal action of Lanesta Gel — in minutes — a decisive measure in conception control.

In Lanesta Gel 7-chloro-4-indanol, a new, effective, nonirritating, nonallergenic spermicide, produces immediate immobilization of spermatozoa in dilution

of up to 1:4,000. The addition of 10 per cent NaCl in ionic form greatly accelerates spermicidal action. Ricinoleic acid facilitates rapid inactivation and immobilization of spermatozoa and sodium lauryl sulfate acts as a dispersing agent and spermicidal detergent.

Lanesta Gel with a diaphragm provides one of the

most effective means of conception control. However, whether used with or without a diaphragm, the patient and you, doctor, can be certain that Lanesta Gel provides faster spermicidal action — plus essential diffusion and retention of the spermicidal agents in a position where they can act upon the spermatozoa.



Lanesta Gel

Supplied: Lanesta Exquiset[®] . . . with diaphragm of prescribed size and type; universal introducer; Lanesta Gel, 3 oz. tube, with easy clean applicator, in an attractive purse. Lanesta Gel, ² oz. tube with applicator; 3 oz. refill tube — available at all pharmacies.

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MODERN THERAPEUTICS—Concluded

Only two maternal factors appear to influence the fetal mortality: (a) the severity of maternal disease and (b) good diabetic control. While there is considerable evidence that diabetic women suffer from a hormonal imbalance during pregnancy and that this is frequently associated with the death of the fetus, there is at present no proof that female sex hormones either completely correct this defect or significantly reduce the fetal mortality rate.

Ideally, infants of diabetic mothers should be delivered between the 35th and 36th week of gestation. This prevents the high mortality rate associated with prematurity if delivery takes place too early and the marked increase of still birth if delivery takes place closer to term. There is no evidence that the mode of delivery or type of anesthesia used significantly affects the outcome.

Clinically, respiratory distress is the principal complication. A respiratory acidosis followed by a metabolic acidosis appears to occur in association with these respiratory changes. At postmortem examination, pulmonary hyaline membranes and atelectasis are the only findings in two-thirds of the infants who die. Hypoglycemia, infections, and congenital anomalies play a relatively minor role in the high neonatal mortality rate.

No specific therapeutic measures, such as the use of antibiotics, oxygen, mist, or cortisone, are helpful in either the prevention or treatment of hyaline-membrane disease in these infants. Instead, one has to rely on good pediatric care and general supportive measures.

From this study, one must conclude that no rational mode of treatment for the infant of the diabetic mother is likely to emerge until we better understand the maternal and fetal factors which are responsible for the pathogenesis of pulmonary hyaline membranes."

SYDNEY S. GELLIS, M.D. and
DAVID YI-YUNG HSAI, M.D.
A. M. A. J. of Dis. of Children (1959),

Vol. 97, No. 1, P. 34

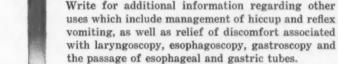














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NEWS AND NOTES

Selected items of current interest from the fields of medical research and education.

Health Plan for Aged Is Too Costly

In a sharply-worded editorial, the *J.A.M.A.* lashed out against legislation proposing a federal compulsory health insurance program.

It referred specifically to legislation, introduced by Rep. Aime Forand (D.-R. I.), which would amend the Social Security Act by providing hospital, nursing home, and surgical services for persons eligible for old age and survivors benefits. Eligibility age limits now are 65 for men and 62 for women.

"The Forand bill is a costly, irreversible program tailored to avoid the real problem," the editorial said, adding: "It is a fundamental deviation from the basic concept of the social security system which provides cash benefits, not services. It injects the federal government into the physician-patient-hospital relationship. Its enactment would be followed by control of the health care of the aged by the Social Security Administration.

"The strongest objection, however, to this kind of legislation is that it is unnecessary and would lower the quality of care rendered. Great progress is being made through voluntary enterprise supplemented by governmental programs that do not socialize the health professions. Voluntary prepayment plans and health insurance have made phenomenal advances during recent years. Already 43% of those aged over 65 years are covered by some kind of insurance, and it is predicted that by the end of 1960, about 60% of those over 65 who

wish to purchase such insurance will be covered. Social security cash benefits, private pension plans, increasing savings, and liquid assets are all combining to improve steadily the economic resources and purchasing power of the group over 65."

"It is obvious," the Journal editorial continued, "that whatever problem exists is among the needy and near-needy aged who would be rapidly reduced to a state of destitution by prolonged illness. In recognition of this fact the Boards of Trustees of the American Medical Association and the American hospital Association recently adopted a resolution dedicating their full resources to accelerate the development of adequately-financed health care programs for needy persons, especially the aged needy. Both organizations stated that 'the indigent or near indigent is primarily a community responsibility.' The resolution pointed out that the Forand bill fails to meet the need of the indigent aged since the vast majority of such aged are not eligible to receive social security benefits.

"Medical-care programs for indigent citizens, especially those over 65, are improving. A new psychological climate for the aging is being created that promotes their productive utilization in society. New hospital designs more suitable and more economical for the care of the ambulatory aged, homemaker services, home-care services, improved nursing homes, and other

Continued on page 192a

Tofranil[®]

in depression

In the treatment of depression Tofrānil has established the remarkable record of producing remission or improvement in approximately 80 per cent of cases.¹⁻⁷

Tofrānil is well tolerated in usage is adaptable to either office or hospital practice—is administrable by either oral or intramuscular

Tofranil

a potent thymoleptic... not a MAO inhibitor.

Does act effectively in *all* types of depression regardless of severity or chronicity.

Does not inhibit monoamine oxidase in brain or liver; produce CNS stimulation; or potentiate other drugs such as barbiturates and alcohol.

Detailed Literature Available on Request.

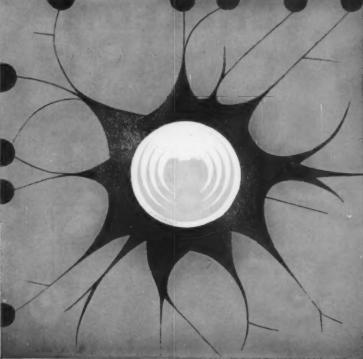
Tofrānil® (brand of imipramine HCI), tablets of 25 mg., bottles of 100. Ampuls for intramuscular administration only, each containing 25 mg. in 2 cc. of solution, cartons of 10 and 50.

References: 1. Ayd, F. J., Jr.: Bull. School Med. Univ. Maryland 44:29, 1959, 2. Azima, H., and Vispo, R. H.: A. M. A. Arch. Neurol. & Psychiat. 81:658, 1959, 3. Lehmann, H. E.; Cahn, C. H., and de Verteuil, R. L.: Canad. Psychiat. A. J. 3:153, 1958. 4. Mann, A. M., and MacPherson, A. S.: Canad. Psychiat. A. J. 4:38, 1959, 5. Sloane, R. B.; Habib, A., and Batt, U. E.: Canad. M. A. J. 80:540, 1959. 6. Straker, M.: Canad. M. A. J. 80:540, 1959. 7. Strauss, H.: New York J. Med. 59:2906, 1959.

Geigy, Ardsley, New York



lights the road to recovery in 80 per cent of cases



Geigy

TO 4-60





IN CHRONIC BRONCHITIS, ASTHMA AND EMPHYSEMA

CHOLEDYL

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betters breathing, forestalls the crisis

Choledyl—the choline salt of theophylline—improves pulmonary function, betters breathing, forestalls the crisis...is basic in any prophylactic regimen. A pure bronchodilator, Choledyl is free of sedative and sympathomimetic effects... Choledyl produces up to 75% higher theophylline blood

levels than does oral aminophylline...does not cause gastric irritation or drug fastness...is ideal for long-term use. Usual adult dose: 200 mg. q.i.d.



positive action programs are proceeding at a rapid pace. Thus, voluntary and governmental enterprise that preserve individual responsibility and free choice have teamed up in recent years and are moving rapidly to resolve whatever problems still remain.

"It will always be possible to do a better job, but the one development which would apply a brake to all of these progressively developing movements would be Forand-type legislation. To bureaucratize medical care by funneling its services through the social security system would supply a 'cure' that would be worse than the disease in its ultimate effects on individual freedom and a free society"

Physicians Fight Cold War

Dr. Charles B. Daugherty of Jeannette, Pa., is doing his bit to fight the cold war.

Under his direction, American physicians have begun sending their old medical journals to physicians in foreign lands instead of letting them go to waste.

The semi-retired otolaryngologist feels this will help deter the spread of communism.

"Doctors in some of these situations are the only literate persons in their communities and have great influence," he said. "If we can get an individual doctor to say 'America is good,' the whole community will say 'America is good.'"

Physicians in many parts of the world lack current medical literature, and since English has largely replaced German as the medical language of the world, American physicians with their vast amount of literature are in a position to make a contribution to foreign medicine for the cost of re-mailing old journals.

After nine months, 65 American physicians are mailing journals to 83 of their counterparts overseas. Dr. Daugherty has access to the addresses of 250,000 foreign physicians and hopes to expand the program, called "Colleagues Everywhere."

Continued on page 196a

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for the benefits of disposability.

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EASY-ENTRY POINTS

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SAFER-HANDLING HUBS

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in the package-after fillingto the moment of injection

now in sizes to meet most parenteral needs manufactured, sterilized and controlled by

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USES: 'Perazil' relieves the symptoms of sneezing, "incessant" itching, inflamed eyes, rhinorrhea, itching eyes, nose and throat, associated with:

Hay Fever • Pollenosis • Pruritus • Urticaria • Vasomotor Rhinitis • Allergic Dermatitis • Drug Sensitivity

ADVANTAGES: 'Perazil' is both prompt and prolonged in effect, providing symptomatic relief lasting 12 to 24 hours from a single dose.

PRECAUTION: When drowsiness does occur it is generally mild and the usual precautions should be observed. No toxic effects related to either the blood-forming

organs or the cardiovascular system are produced.

DOSAGE: Adults and children over 8 years, 50 mg. once or twice daily as required. The dose may be increased in severe cases.

Children from 2 to 8 years, 25 mg. (one sugar-coated tablet) once daily.

Infants up to 2 years, $12\frac{1}{2}$ mg. (one quarter of a 50 mg. tablet) crushed and mixed with a spoonful of jam or syrup.

SUPPLIED: Tablets of 25 mg., sugarcoated, bottles of 100 and 1000; 50 mg., scored, bottles of 100 and 1000.

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Raudixin-the cornerstone of antihypertensive therapyhelps relieve the pressures <u>in</u> your patients-helps relieve the pressures <u>on</u> your patients / 50 and 100 mg. tablets whole root rauwolfia for exceptional patient response

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All-India Institute of Medical Sciences

Established in 1956 by special act of Parliament to set standards in medical education and to train teachers for other Indian medical colleges, the All-India Institute of Medical Sciences, New Delhi, has received a grant of \$2,000,000 from the Rockefeller Foundation. With the help of a grant of about one million pounds from New Zealand under the Colombo Plan, and substantial grants of both land and money from the Indian government, the institute is developing programs in health sciences, and constructing the necessary facilities for undergraduate and graduate medical education, as well as training in nursing and dentistry. When completed, the Institute will consist of a main building for medical instruction with an attached modern hospital of 650 beds, nursing and dental colleges, a nurses' home, and residential quarters for students, teachers, and other staff personnel. All the preclinical and paraclinical departments are already functioning, and work is gradually getting under way in the clinical departments as well. The new Foundation grant will be used for the purchase of teaching and research equipment.



"Fred, I don't want to see you for quite awhile."

The Attitude Toward Mental Illness

Public attitude toward mental illness is becoming much healthier. This is the opinion of a psychiatrist at the University of Michigan Medical Center. Dr. Moses M. Frolich says that the old fear and shame of mental illness is giving way to a more realistic attitude. The public now recognizes that emotional illness can occur just as does physical illness. Also, the need for expert help with emotional difficulties is coming to be recognized. In time of stress, emotional reactions or symptoms may be entirely normal.

However, if these reactions are excessive in degree, if they are excessively prolonged, or if they are not appropriate to the situation, illness may be suspected.

Pediatrics Study in Nigeria

The University College, Ibadan, Nigeria, reportedly the only institution on the West Coast of Africa conducting research and training on indigenous medical problems, is initiating a pediatrics study in rural areas. The Rockefeller Foundation is giving about \$108,800 in support of the program over a three-year period. Dr. W. R. F. Collis, Head of Pediatrics at the College, will direct a small group in a study of African diseases affecting children in the Ilesha-Imeis region. The study will be aimed at discovering the incidence of various diseases among children, their relative importance, and their natural history in village life. Special attention will be given to nutrition, since dietary deficiencies are thought to be responsible for a large proportion of illnesses and deaths in young children. A field station will also be set up where pediatrics students from the college can receive training in providing sanitation, health education, and ambulatory care at the village level. The twofold program will provide factual information and new opportunities for training that are needed in an area of West Africa whose population is over 45 million.

Continued on page 198a

True broad-spectrum coverage... proved clinical efficacy

CHLOROMYCETIN°

DUTSTANDINGLY EFFECTIVE AGAINST A WIDE RANGE OF PATHOGENS

IN VITRO SENSITIVITY OF GRAM-POSITIVE ORGANISMS TO CHLOROMYCETIN AND TO THREE OTHER BROAD-SPECTRUM ANTIBIOTICS*

CHLOROMYCETIN (254 strains)	89%
ANTIBIOTIC A (260 strains)	79%
ANTIBIOTIC B (261 strains)	77%
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CHLOROMYCETIN (244 strains)	62%	
ANTIBIOTIC A (245 strains)	46%	
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^{*}Adapted from Leming, B. H., Jr., & Flanigan, C., Jr., in Welch, H., & Marti-Ibañez, F.: Antibiotics Annual 1958-1959, New York, Medical Encyclopedia, Inc., 1959, p. 414.

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100.

CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

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Medical Center in Boston

Formation of a Boston University-Massachusetts Memorial Hospitals Medical Center, to continue and enlarge the cooperative enterprises of the two institutions in the advancement of patient care, of education in medicine and other health services, and of research, was announced by President Harold C. Case of Boston University. The move converts to a formal association the informal cooperation which exists between the Boston University School of Medicine and its principal teaching hospital, the Massachusetts Memorial.

The Medical Center will be governed by a joint administrative Board, composed of the presidents and three representatives each from the trustees of the University and the Hospitals,

and a member-at-large elected by the other eight. The Board will have over-all supervision of the Medical Center, including medical care, research, and any other training programs conducted by any unit of the center. A full-time director of the medical center, who will serve as chief executive officer of the board and the center, will be appointed. The cost of establishing the center and paying for the services of the director and the expenses of his office will be shared equally by the University and the Hospitals. The offices of dean of the School of Medicine and administrator of the Hospitals will continue, and final authority for the program of each institution will remain with its respective Board of Trustees.

Continued on page 200a



... for the Painless Treatment of WARTS and CORNS



AN ETHICAL PRODUCT - PROMOTED ONLY TO PHYSICIANS

Completely painless; highly effective. Vergo acts without the inconvenience and discomfort to the patient which is associated with some other methods, and without scars, burns, blisters, or mess. Active ingredients: "Pancin" (specially prepared from calcium pantothenate, ascorbic acid and starch).

Samples and literature on request





What 5-fold absorption really means...

Appetite... Growth with

Gynal

Ion-exchange vitamin B_{12} administration provides unique superiority over previous oral forms of the vitamin. Present in Cynal as LB 12 ion-exchange vitamin B_{12} protects against gastric destruction and provides smooth, sustained absorption . . . up to 5 times a great as with ordinary preparations.

Cynal therapy aids in stimulating appetite, increasing food intake in malnutrition and helps insure healthy growth.

A single dose of Cynal provides not only generous amounts of Vitamin B_{12} but also vitamins B_1 and B_6 as valuable adjuncts to absorption² and body metabolism.

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EACH "CHERRO-CHEW" TABLET CONTAINS:

Thiamine mononitrate

(vitamin B_1) 10 mg.

Vitamin B₁₂ (as L. B. 12*) 25 mcg.

Pyridoxine hydrochloride (vitamin B₆)

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*Lloyd's absorption-enhancing complex of vitamin B₁₂ (B₁₂ from Cobalamin Concentrate).

DOSE: One tablet per day.

SUPPLIED: Bottles of 50 tasty "Cherro-Chew" tablets.

REFERENCES: 1. Chow, B. F.: Gerontologia 2:213-221, 1958.
2. Chow, B. F., et al.: Am. J.
Clin. Nutrition 6:386, 1958.





FOR THE DOCTOR WHO

THIS IMPORTED DECORATOR'S PIECE MAKES AN OUTSTANDING GIFT OR PRIZE THAT SURELY WILL BE TREASURED BY ITS RECIPIENT. COMBINING GRACE AND A TOUCH OF HUMOR, IT WILL ADD A NOTE OF CHARM TO A PHYSICIAN'S OFFICE OR HOME.

STYLED AND HAND-PAINTED BY ITALIAN ARTISTS, THE GLAZED CE-RAMIC STANDS ONE FOOT HIGH. PRICE: \$19.75 EACH. SEND CHECK WITH ORDER.

10% DISCOUNT ON HALF-DOZEN ORDERS. WRITE FOR SPECIAL PRICES ON QUANTITY ORDERS.

MEDICAL TIMES OVERSEAS, INC. DEPT. M. 1447 NORTHERN BOULEVARD MANHASSET, NEW YORK

College of Nutrition Is Formed to Promote Metabolic Research and Therapy

Formation of the American College of Nutrition was announced by a group of New York and New Jersey specialists in nutrition, metabolic diseases and gastroenterology. Its purpose is to promote postgraduate research and education in therapeutic nutrition — the supply, transport, and utilization of materials for the building, maintenance and reproduction of cells, structures, and systems of the human body.

Dr. S. William Kalb of Newark, N. J., has been elected president of the new college. Dr. Kalb is chief of nutrition services, Clara Maas Memorial Hospital, Belleville, N. J., and Beth Israel Hospital, Newark, and chairman of the nutrition committee of the Essex County Medical Society. He was formerly lecturer and clinician, New York Post Graduate Medical School and Hospital. He is the author of numerous scientific papers and reports and is frequently called on as a consultant to the Federal Trade Commission and congressional committees. He has specialized in metabolism and nutrition since 1925.

Dr. Peterman, whose home is Livingston, N. J., is physician-in-charge, Obesity Clinic, Kips Bay Health Center, New York City, and consultant in nutritional disorders and nutritional and metabolic research to pharmaceutical and other research organizations. A former member of the board of governors of the National Vitamin Research Foundation, he has specialized in nutritional, metabolic, and related disorders for 13 years, is the author of clinical reports in his specialty and is now secretary-treasurer of the new college.

Physicians eligible for fellowship are those whose professional activity is chiefly concerned with metabolism and nutrition—as in the treatment of such diseases as sprue, diabetes, gastrointestinal disorders, conditions in which electrolyte balance and metabolite supply to the tissues are involved, and others in which

Continued on page 202a

We've come a long way since—to staunch the flow of blood—Galen dipped a sponge in asphalt, placed it on the bleeding point, and set it on fire to form a crust and stop hemorrhage. To check hemorrhage today the safe, proved

method! • No untoward reaction ever reported—even after millions of doses • Acts directly upon the clotting mechanism—effective in less than 30 minutes • Controls bleeding of any systemic origin—usually with just one injection • Most economical hemostatic for routine use—costs less per injection, requires fewer injections • Koagamin, an aqueous solution of oxalic and malonic acids for parenteral use, is supplied in 10-cc. diaphragm-stoppered vials.

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nutritional or metabolic factors are important, including postoperative convalescence. Both fellowships and associate fellowships will be granted by the college. The administrative office of the organization is at 19 Oak Street, Livingston, N. J.

Merck Memorial Fund

It is generally recognized that pharmaceutical manufacturers support extensive programs. In 1959 the industry spent in excess of 190 million in various areas of basic and applied research. However, many physicians are not aware of the continuing contributions that these firms make in the expanding field of postgraduate education. One of the firms most active in supporting pharmaceutical research, Merck and

Company, through its division, Merck Sharp & Dohme, has recently announced the immediate availability of a comprehensive postgraduate program for physicians.

It includes a loan fund for interns and residents, as well as financial help in almost every important medium of professional communications. Established late in 1959, by the Board of Directors of Merck and Company, The George W. Merck Memorial Loan Fund for Interns and Residents provides \$400,000 to the participating medical schools over an eight-year period.

The purpose of the Fund is to encourage deserving interns and residents to seek the best postgraduate training by providing loan funds that will supplement the stipends available to

Continued on page 206a



MIRANDA 'AUTOMEX' fully automated, with cross-coupled, built-in Exposure Meter, automatic 50mm f1.9 Lens, Interchangeable Mount for use with all Miranda, Exakta, Praktica Lenses and Accessories. Instant Return Mirror and every automatic feature you've ever desired. For office or personal use, there is no finer 35mm camera made. . . List only \$299.95.

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In acute and chronic sinusitis



... a logical, clinically superior formulation of

Calurin...the new, freely soluble, better tolerated neutral salt of aspirin relieves pain...fast and effectively



Triaminic... the leading oral nasal decongestant... safer and more effective than topical medication^{1,2}

relieves pressure . . . within minutes

Ursinus Inlay-Tabs TM contain:

CALURIN (5 gr.) 300 mg.

INDICATIONS: Acute, subacute and chronic sinusitis. Relief of symptoms accompanying the common cold.

DOSAGE: Adult: 1 or 2 URSINUS Inlay-Tabs every 4 to 6 hours. Children 6 to 12: ½ to 1 URSINUS Inlay-Tab every 6 hours.

SUPPLY: Bottles of 100 URSINUS Inlay-Tabs.

URSINUS is available on prescription only.

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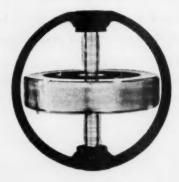
Farmer, D. F.: Clin.
 Med. 5:1183 (Sept.) 1958.
 Lhotka, F. M.: Illinois
 M. J. 112:259 (Dec.) 1957.

in rheumatoid arthritis ...

for total corticosteroid benefits

Substantiated by published reports of leading clinicians:

• effective control of inflammatory and allergic symptoms¹⁻⁹



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At anti-inflammatory and antiallergic dosage levels, ARISTOCORT means:

- · freedom from salt and water retention
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them at teaching hospitals. It will be administered by the deans of the eighteen medical schools participating in the program.

These awards may be made to graduates of the participating medical school wherever they are in training or to graduates of other medical schools who are in training at hospitals associated with the participating medical school.

Every loan will be repaid to the participating school. The specific terms of repayment, rate of interest, if any, and other conditions are to be established by the dean.

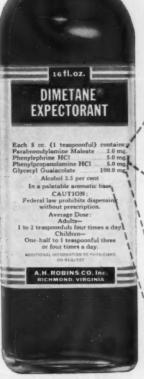
The schools participating in the Memorial Fund were selected on the basis of close personal friendships of Mr. Merck with some faculty members. They are: Boston University, School of Medicine, Boston, Massachusetts; Columbia University, College of Physicians and Surgeons, New York, New York; Cornell University, Medical College, New York, New York; Harvard Medical School, Boston, Massachusetts; The Johns Hopkins University, School of Medicine, Baltimore, Maryland; New York University, College of Medicine, New York, New York; Northwestern University, Medical School, Chicago, Illinois; St. Louis University, School of Medicine, St. Louis, Missouri; Tufts University, School of Medicine, Boston, Massachusetts; University of California, School of Medicine, San Francisco, California; University of Chicago, School of Medicine, Chicago, Illinois; University of Illinois, College of Medicine, Chicago, Illinois; University of Pennsylvania, The School of Medicine, Philadelphia, Pennsylvania; University of Vermont, College of Medicine, Burlington, Vermont; University of Virginia, School of Medicine, Charlottesville, Virginia; Vanderbilt University, School of Medicine, Nashville, Tennessee; Washington University, School of Medicine, St. Louis, Missouri; Yale University, School of Medicine, New Haven, Connecticut. The Loan Fund is administered by The Merck Company Foundation.

The other program announced by Merck

Continued on page 210a

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the antihistamine most likely to succeed

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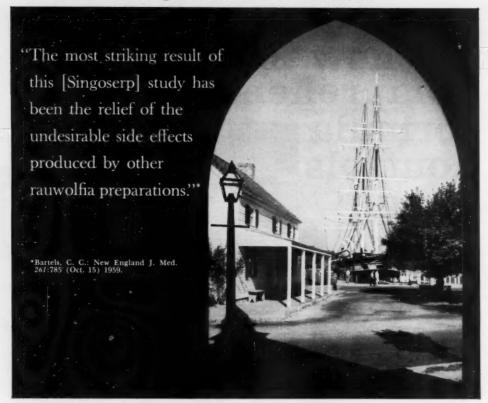
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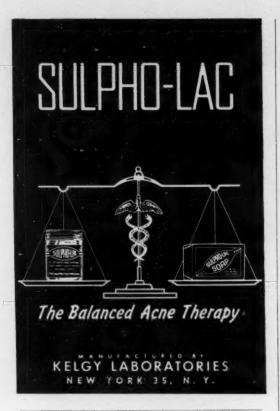
"Personal experience with the hunger of infants fed even 3.5 Gm. (of protein) per kilogram makes us unwilling to recommend intakes of cow's milk which would give less protein. Although the determinants of food intake are complex, the possibility exists that unmet nutritional needs may make the intake of 3.5 Gm. and more of cow's milk protein necessary..."

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*Gordon, H. H., and Ganzon, A. F.: J. Pediat. 54: 503 (April) 1959.

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eases tensions of dieting (yet without overstimulation, insomnia or barbiturate hangover)



is a logical combination in appetite control

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A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Sharp & Dohme, and administered by Frederick K. Heath, M.D., Director of Professional Relations, West Point, Pennsylvania, is the Postgraduate Program for the Medical Profession. It provides financial grants to further several areas of postgraduate education for physicians including: meetings, medical research conferences, postgraduate courses, open-circuit television reports, Kinescopes of televised medical meetings, and reprints of papers of outstanding medical interest. The Merck Sharp & Dohme Seminar Report, now in its 21st year, will become a part of the Postgraduate Program for Physicians, as will the Merck Manual.

In the months to come, through financial support offered by the Postgraduate Program, physician organizations will be able to invite outstanding scientists and clinicians to discuss subjects of special interest.

In 1960, under the auspices of Boston University School of Medicine, an international conference will be held on Aldosteronism. Conferences in future, years will emphasize areas of research which might be expected to benefit from such gatherings. Proposals are invited

To date, six medical centers have arranged courses with grants-in-aid from the Postgraduate Program. These will be held throughout the year, and include extension teaching programs, postgraduate courses in allergy, anesthesiology, and general medicine.

In cooperation with medical organizations throughout the country, physicians have been invited to present reports of exceptional interest to the public. Meetings which are represented include: The American Medical Association's Annual Meeting and Annual Clinical Session, The Southern Medical Society's Annual Meeting, and The Annual Scientific Assembly of the American Academy of General Practice.

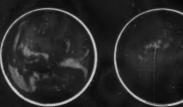
Complete information on all phases of the Postgraduate Program as well as a brochure on the Program can be secured by writing

Continued on page 214a

explodes trichomonads

LIQUID AND JELLY

93.1% "cure" rate using strictest criterion—
negative cultures for 3 consecutive months



c 30 days cui

Repeated negative cultures, following treatment with VAGISEC liquid and jelly, confirmed "cures" in 93.1% of trichomoniasis patients (54 of 58) treated by Giorlando and Brandt. These patients were followed up, using cultures, for a minimum of three months, many for as long as eight months. All remained negative. Using the same strict criterion of negative cultures, Weiner achieved comparable success²—46 of 51 patients freed of trichomonads.

Vagisec therapy is consistently characterized by immediate relief of painful symptoms – few recurrences.

To help rule out conjugal re-infection—Husbands willingly cooperate as a part of the wife's treatment when RAMSES,* the pure gum rubber prophylactics with "built-in" sensitivity, are suggested for use routinely.

Active Ingredients in Vagisco Iliquid: Polyoxyethylene nonyl phenol.
Sodium ethylene diamine tetra acetate, Sodium dioctyl sulfosuccinate.
In addition, Vagisco [elly contains Alcohol 5% by weight.
1. Giorlando, S. W., and Brandt, M. L.: Am. J. Obst. & Gynec.
76:866 (Sept.) 1958. 2. Weiner, H. H.: Clin. Med. 5:25 (Jan.) 1958.

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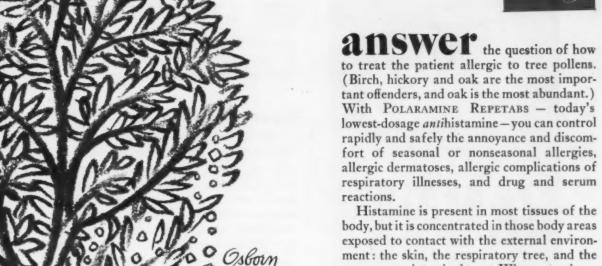
Polaramine Repetabs

800000

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O

Histamine is present in most tissues of the body, but it is concentrated in those body areas exposed to contact with the external environment: the skin, the respiratory tree, and the upper gastrointestinal tract. When an antigen, whether from tree pollen or any other allergenic substance, provokes an antibody response, histamine is released, and the familiar symptoms of allergy follow. Polaramine—in any form—controls these allergic reactions by blocking the access of histamine to receptor sites, and Polaramine does this at dosages lower than those necessary with other available antihistamires.

POLARAMINE REPETABS (4 mg. and 6 mg. dosage forms for your patients' convenience) and POLARAMINE Tablets (2 mg.) are unrivaled in effectiveness and safety. The rapidity of action for which POLARAMINE is noted is also important to the physician. Summarizing treatment of a recent group of 100 allergic patients, Babcock and Packard report that POLARAMINE REPETABS were "... especially effective in patients who presented sudden, acute allergy symptoms."*

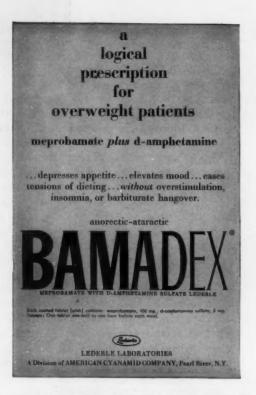
Remember also that POLARAMINE Syrup it tastes good—is a great help in treating the young allergic patient or those who prefer liquid medication.

Dosage: REPETABS, 6 mg. and 4 mg. — One REPETAB in the morning and one REPETAB in the evening. Tablets, 2 mg. — One t.i.d. or q.i.d.; children under 12, one-half tablet t.i.d. or q.i.d.; infants, one-quarter tablet t.i.d. or q.i.d. Syrup, 2 mg. per 5 cc. — Adults, one teaspoonful t.i.d. or q.i.d.; infants, one-quarter teaspoonful t.i.d. or q.i.d.; infants, one-quarter teaspoonful t.i.d. or q.i.d.

Supply: POLARAMINE REPETABS, 6 mg., bottles of 100 and 1000; 4 mg., bottles of 100 and 1000. Tablets, 2 mg., bottles of 100 and 1000. Syrup, 2 mg. per 5 ec., 16 ox. bottles.

*Babcock, G., Jr., and Packard, L. A.: Clin. Med. 6:985 (June) 1959.

POLARAMINE® Maleate, brand of dexchlorpheniramine maleate. REPETABS,® Repeat Action Tablets,



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Low cash investment...no time away from your profession

Proven opportunity! Hundreds of doctors, lawyers, professional men of all kinds are realizing substantial profits from small cash outlay in self-service, coin-operated laundries equipped with Frigidaire Automatic Washers. Customers serve themselves. Vending machines take in money and keep it in strong boxes for collection. This profitable part-time business would require only several hours of your time each week. Frigidaire Division of General Motors has wide experience to help you; tips on where to locate, how to merchandise and how to serve customers most profitably.

- Fast, efficient 17½-minute Frigidaire washing cycle and best water extraction mean more customers per hour, per machine, than other washers.
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Frederick K. Heath, M.D., Director of Professional Relations, Merck Sharp & Dohme, West Point, Pennsylvania.

Operating Room Bacteria

Evidence that germ-killing ultraviolet radiation can virtually abolish infections caused by air-borne bacteria in hospital operating rooms was presented by Duke University Medical Center surgeons. A Duke exhibit at the American College of Surgeons' annual meeting reveals that ultraviolet radiation, as a supplement to careful surgical technique, can keep such infections at a level of around one-fourth of one per cent. From 1956 to 1959, there were only eight such infections in a total of 7,095 major operations at Duke Hospital.

The exhibit sums up 23 years of experience with ultraviolet germicidal lamps at Duke Hospital, the first institution in the United States to so equip its operating rooms. At present, only a few hospitals use this method of killing harmful bacteria. The exhibit was prompted by the current rise in infection over the Nation due to Staphylococcus aureus, bacteria that have developed resistance to many of the antibiotics.

The staphylococcic infection problem is universal and not new. In spite of aseptic technique, these bacteria are brought into operating rooms in the respiratory systems of surgeons and other personnel. The bacteria are carried through the air to open surgical wounds directly or by way of sterile supplies which have become contaminated.

The low infection rate at Duke Hospital has remained constant despite seasonal upsurges in respiratory infections and occasional epidemics that greatly increase the numbers of staphylococci in the air. Ultraviolet equipment used at the Hospital consists of tubular lamps mounted near the ceiling of each operating room. These lamps emit invisible germ-killing ultraviolet radiation along with deep plue light.

Continued on page 218a

"Are the xanthines effective in ANGINA PECTORIS?"

(Abstract of the paper with above title)

A favorable response was unequivocally demonstrated with aminophylline when administered intravenously to angina pectoris patients. In sharp contrast the author, noted for his original contributions to cardiovascular research, found oral administration ineffective in all patients tested. This suggested that the failure was correlated with subthreshold theophylline blood-levels obtained with oral administration.

A 20% alcohol-solution of theophylline (Elixophyllin®) has been shown to provide blood levels comparable to those obtained with I.V. administration of aminophylline. This oral preparation and a placebo (identical in appearance, taste and alcoholic con-

tent) were tested by the electrocardiographic response obtained and by a doubleblind clinical evaluation.

The author reported: "In the light of these findings, conclusions derived from animal experiments which have classed theophylline as a 'malignant' coronary vasodilator must be rejected for man." Elixophyllin administered orally to 30 patients was effective "not only in control of symptoms but in its modifying action on the electrocardiographic response to standard exercise. The efficacy of this preparation is based on the rapid absorption and attainment of high blood levels made possible by the vehicle employed."

(Russek, H. I., Am. J. Med. Sc. Feb., 1960)

CLINICAL REFERENCE DATA ON

ELIXOPHYLLIN

FORMULA: A hydro-alcoholic solution of theol

A hydro-alcoholic solution of theophylline. Each 15 cc. (1 tablespoonful) contains 80 mg, theophylline (equivalent to 100 mg, aminophylline) and 20% ethyl alcohol.

ORAL DOSAGE: First 2 days—doses of 45 cc. t.i.d. (before breakfast, at 3 P.M., and on retiring).

Thereafter—doses of 30 cc. t.i.d. (at same times).

AVAILABLE: Prescription only; bottles of 16 fl. oz. and 1 gallon.

SPECIAL REPRINT: Reprint of Dr. Russek's paper abstracted above on re-

Sherman Laboratorie.

Detroit 11, Michigan

WEIGHT GAIN



WHY DECADRON TREATS THE WHOLE PATIENT MORE EFFECTIVELY

"...WEIGHT GAIN IS A DEFINITE THERAPEUTIC ADVANTAGE..."

Many patients with chronic rheumatoid arthritis or other collagen or allergic•diseases require the "tonic effect" as well as the anti-inflammatory effects of dexamethasone. For those, DECADRON has relieved fatigue and weakness, 3.4 stimulated appetite 3-5 and often promoted a "real gain in weight" - frequently a clinical advantage which contributes to optimum therapeutic results.

"SUPERIOR TO OTHER STEROIDS IN CURRENT USE"

The clinical superiority of dexamethasone rests on a unique balance of potency and safety, combining "the most potent" anti-inflammatory action with "the least number of side effects." This superiority has already been confirmed in over 16 million patient-days of treatment with DECADRON.

References: 1. Duvenci, J., et al.: Ann. Allergy 17:695, 1959.
2. Rudolph, J. A., and Rudolph, B. M.: Ann. Allergy 17:710, 1959.
3. Spies, T. D., et al.: South. M. J. 51:1066, 1958.
4. Galli, T., and Mannetti, C.: Minerva med. 50:949, 1959.
5. Segal, M. S., et al.: Ann. Allergy 17:413, 1959.
6. Bunim, J. J., et al.: Arthritis & Rheumatism 1:313, 1958.
7. Silverman, H. I., and Urdang, A.: Am. Prof. Pharm. 25:531, 1959.

Supplied: As 0.75 mg. and 0.5 mg. scored, pentagon-shaped tablets in bottles of 100 and 1000. Also available as Injection DECADRON Phosphate.

Additional information on Decadron is available to physicians on request,

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Decadron &



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Multiple Pregnancy Can Be Diagnosed in Fifth Month

By using the machine ordinarily used to measure brain waves, doctors now can detect tiny heart beats in the womb and tell an expectant mother whether she will bear a single child, twins, or triplets. The diagnosis can be made with 100 percent accuracy between the fifth and seventh months of pregnancy.

Drs. C. A. Novotny, W. K. Hass, and D. A. Callagan of the U.S. Navy Medical Corps conducted electroencephalograph tests on 295 women at the U.S. Naval Hospital, Portsmouth, Va.

Electrodes of the electroencephalograph are pasted to expectant mother's bodies, permitting a systematic search for fetal heart beats. The machine picks up the electrical impulses from the fetal heart and records them on a graph. The number of fetuses is indicated by slightly different heart beats.

Three hundred and twenty-one tracings were obtained from the 295 patients by this method. In a vast majority of case studies it also was possible to support the occurrence of fetal death.

Tracings were taken at random between the 11th and 40th week of pregnancy. The 20th through the 27th week was the most favorable period, the doctors said, and 100 percent accuracy was possible when diagnosing twins or triplets during this period. In all diagnoses during the 20th through 27th week, a 90 percent degree of accuracy was obtained, they stated.

In all cases, between the 11th and 40th week of pregnancy they said an 81 percent degree of accuracy of diagnosis was obtained.

The earliest positive diagnosis of twins was made at 16 weeks. An accurate diagnosis of triplets was easily made at 20 weeks. The doctors noted that an x-ray made of the same patient was still inconclusive for triplets four weeks later.

Their investigation was prompted by a desire for early diagnosis due to complications of multiple pregnancies; by concern about irradiation hazards of x-ray diagnosis, and by the increasing availability and efficiency of the electroencephalograph.

Specialist Condemns Rash of Open Chest Heart Massage

The increasing use of open chest heart massage was criticized by a New York physician.

"The rash of thoracotomies [chest incisions] occurring in emergency rooms, medical wards, and even ambulances must be condemned," stated Dr. Vincent J. Collins of New York University-Bellevue Medical Center.

". . . thoughtless thoracotomies are being performed without due consideration of the principles [of cardiac resuscitation and massage] and in the face of inadequate assistance and equipment," he said.

This extraordinary measure, he said, should not be taken when heart collapse is precipitated by disease. Even in the operating room, where all skills are available and there is usually a preconceived plan of action, the incidence of successful resuscitation is "nil" in cases in which there is pre-existing cardiac disease, he said.

Dr. Collins said "numerous reports of cardiac arrest in recent years leave the impression that fatalities from the conduct of anesthesia and surgery are on the increase."

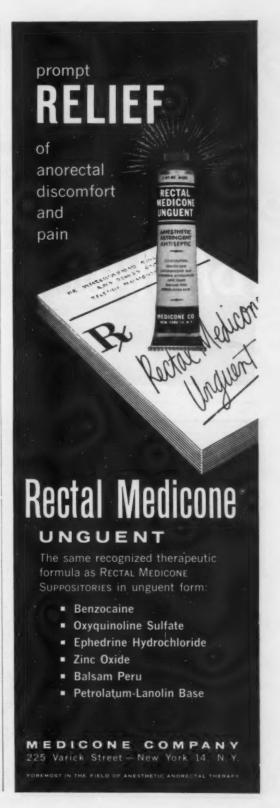
However, he said, the lack of specific definition and terminology relating to operating room deaths and of uniformity in compiling statistics make the problem difficult to assess.

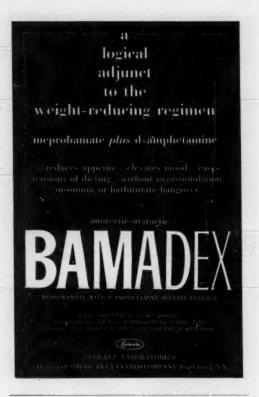
The importance of medical causes of death is increasing because of the frequency of medico-legal and professional criticism, he said.

Such criticism is often based on the too ready assumption that every death occurring under anesthesia is caused by anesthesia or the anesthetist, in the absence of an obvious catastrophic event..."

He urged that every death under anesthesia be followed by postmortem examination as regularly as are other deaths occurring due to accidental or unknown causes or under suspicious circumstances.

Continued on the following page





MEDICAL TIMES

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Now available—selected articles from MEDICAL TIMES printed in Spanish. The journal is mailed monthly direct from Buenos Aires, Argentina.

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MEDICAL TIMES OVERSEAS, Inc.

1447 Northern Boulevard, Manhasset, N. Y.

Research Training in Psychiatry in Brooklyn

The graduate educational program of the State University of New York Downstate Medical Center offers a two-year program of research training in psychiatry leading to the degree of doctor of medical science. The program is open to physicians who have completed three years of residency training in psychiatry. Candidates will also be accepted after two years of residency training. In such cases the final year of residency will be taken at the psychiatric division of Kings County Hospital concurrently with this program, and a total of three years will be required to complete the combination of the two-year research training program and the third year of residency. The program provides an opportunity to do research and offers courses concerned with research methodology in psychiatry. Extensive clinical and laboratory facilities are available for research projects.

Program to Evaluate Drugs

Dr. Samuel Bellet, Chief of Cardiology at Philadelphia General Hospital, has been awarded \$241,000 for a five-year research program by the Department of Health, Education and Welfare, US Public Health Service. The grant calls for Dr. Bellet to receive \$48,300 each year for five years to seek a critical evaluation of various drugs introduced and used in clinical medicine, with emphasis on cardiovascular diseases. The award represents the largest research grant for any one project at the cityowned institution since the formation of the Philadelphia General Hospital Research Fund a few years ago.

Dr. Bellet stated that the project is designed to fill a valuable need in medicine since, with the many new drugs introduced each year, there is great need for such a study. There should be a group prepared to evaluate objectively each new drug for its efficacy. This agency would be an exchange between this and

Concluded on page 222a



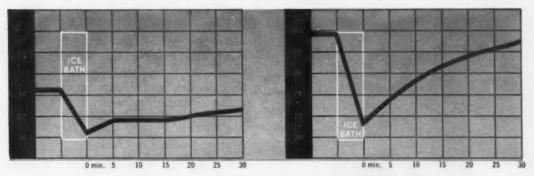
in peripheral vascular disease . . . direct, prolonged action

In both vasospastic and occlusive peripheral vascular diseases, CYCLOSPASMOL is orally effective, well tolerated, and notably free from side-effects. Clinically proved, it is recommended for the control of intermittent claudication in arteriosclerosis obliterans, Raynaud's disease, and Buerger's disease. Also for treatment of trophic and diabetic ulcerations and for circulatory impairment of feet, legs, and hands.

VASODILATING EFFECT OF CYCLOSPASMOL DEMONSTRATED BY THERMAL DATA'

Before CYCLOSPASMOL therapy—average skin temperature of fingertips of both hands

After CYCLOSPASMOL therapy (100 mg. q.i.d. for 2 weeks)—average skin temperature of fingertips of both hands



Patient is 65-year-old woman suffering from peripheral vascular disease attended by vasospasm. Before Cyclospasmol, skin temperature remains almost constant following ice bath. Skin temperature climbs six degrees in the same interval, however, when patient is on Cyclospasmol therapy.



CYCLOSPASMOL

Cyclandelate (3,5,5 trimethylcyclohexyl mandelate), Ives-Cameron; U.S. Patent No. 2,707,193

Reference: 1. Kappert, A.: Schweiz. med. Wchrschr. 85:273, 1955. Bibliography: 1. Van Wijk, T.W.:
Angiology 4:103, 1953. 2. Gilhespy, R.O.: Brit. M.J. 2:1543, 1957. 3. Gilhespy, R.O.: Angiology 7:27, 1956.
4. Winsor, T.: Angiology 4:134, 1953. 5. Reeder, J.J.: Geneesk. gids. 31:370, 1953.

of aging...

begins at 40

KAPSEALS®

Taken during the middle years, ELDEC Kapseals help forestall nutritional and hormonal deficiencies that contribute to the troublesome disorders of aging. ELDEC Kapseals provide comprehensive physiologic supplementation...aid in maintaining metabolic efficiency. At a time when normal function is declining, ELDEC Kapseals help lay a firm foundation for good health and vitality in the later years.



PARKE, DAVIS & COMPANY Detroit 32, Michigan



similar groups throughout the country. It would also serve as a place for clinical training in the critical evaluation of drug therapy.

The research program to be carried out at the Philadelphia General Hospital Heart Station will consist of training clinicians, pharmacologists, biochemists, and others engaged in the basic sciences, and also utilize systematic methods of drug evaluation from a theoretical. experimental, and clinical standpoint.

The grant to Dr. Bellet follows the pattern of increased emphasis on the part of the Trustees of the Philadelphia General Hospital Research Fund for the Institution. In 1958, a total of \$146,197 was awarded to the Philadelphia General Hospital for research projects, the highest amount in the four-year existence of the Fund.

Dr. Lester R. Dragstedt

Dr. Lester R. Dragstedt, retired chairman of the Department of Surgery at the University of Chicago, will join the faculty of the University of Florida College of Medicine at Gainesville. He will teach surgical physiology, basic physiology, and serve as counselor to resident physicians in surgery.

Armour Building at Chicago

The US Public Health Service has formally approved a \$1,068,034 grant for the construction of the Philip D. Armour Clinical Research Building at the University of Chicago. The total cost of the Armour Building is estimated at three million dollars. Completion of the sixstory building is expected in 1961. It will increase to 14 the research buildings of the University of Chicago Medical Center. An additional \$11,489 has been granted for other laboratory facilities at the University of Chicago Clinics. The Armour Building is named in honor of a member of a pioneer Chicago family: funds for construction will also come from Armour family contributions.

DIAGNOSIS, PLEASE

(Answer from page 33a)

EMPHYSEMATOUS CHOLECYSTITIS

Note gas bubbles in gallbladder lumen,
in gallbladder wall and in surrounding
tissues.

WHO IS THIS DOCTOR?

(Answer from page 81a)
SIR RONALD ROSS.

MEDIQUIZ

(Answers from page 85a)

1 (E), 2 (B), 3 (D), 4 (D), 5 (D), 6 (B), 7 (E), 8 (E), 9 (A), 10 (A), 11 (B), 12 (E), 13 (E).

WHAT'S YOUR VERDICT?

(Answer from page 61a)

The administrator and physician settled and adjusted the liability as to the physician to \$30,000 before the appeal was heard. The Appellate Court set aside the verdicts in favor of the nurse and the hospital, holding:

"If the physician could be found responsible for having failed to prepare for, direct, or to supervise the giving of the anesthesia, which constituted passive negligence only, then in the interest of justice no verdict in favor of the nurse and the hospital, who were active tort feasors, may remain undisturbed."

Based on Decision of Supreme Court of New York

for happy,

healthy retirement years

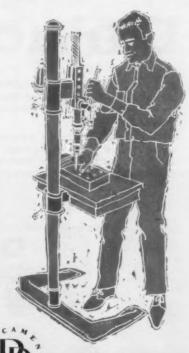
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begins at 40

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- 10 important vitamins plus minerals to help maintain cellular function and correct deficiencies
- protein improvement factors to help compensate for unwise choice of food
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- steroids to stimulate metabolism and prevent or help correct protein depletion states
 Packaging: ELDEC Kapseals are available in bottles of 100



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especially designed for sustained anabolic and climacteric therapy in the female and male . . .

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SQUIBS TESTOSTERONE ENANTHATE AND ESTRADIOL VALERATE

 relieves physical, mental and emotional distress in the climacteric and helps to correct hormonal imbalance and protein loss · minimizes or eliminates unwanted sexual effects
 well tolerated and convenient administration — low viscosity permits easy IM injection with small-gauge needle.

DELADUMONE is indicated in the menopausal syndrome, in osteoporosis (postmenopausal, senile). Dosage 1 to 2 cc. as a single intramuscular injection, every 3 or 4 weeks, depending on clinical response. Supply Vials of 1 and 5 cc. Each cc. contains 90 mg. testosterone enanthate and 4 mg. estradiol valerate.

especially designed for convenient inhibition of lactation and prevention of breast engorgement

Deladumone 2X

 optimally balanced — long-acting — double potency Dosage: In the suppression of lactation, 2 cc. given as a single intramuscular injection, preferably at the end of the first stage of labor or else immediately upon delivery. Supply: Each cc. contains 180 mg. testosterone enanthate and 8 mg. of estradiol valerate dissolved in sesame oil. Vials of 2 cc.



Squibb Quality-the Priceless Ingredient

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Covering the Times...

Do you see yourself on our cover?
You may—if you attended last year's American
Medical Association Convention at Atlantic City.

For our Cover Art Editor, Stevan Dohanos, was also there, gathering material for the cover on this issue of your journal. (Perhaps you recall a friendly looking chap in a striped seersucker jacket who circulated a great deal and seemed more interested in the people around him than in the exhibits.)

Dohanos, as you can gather, goes to great pains to assure getting authentic detail in his paintings. Not content to rely on sketches and his own sense impressions, he took some 75 photos of people attending the convention.

Some of his photos are reproduced on these pages. Are you in any of them?



"Don't mind if I do."

"Here's how it works . . ."



(VOL. 88, NO. 5) MAY 1960

"Might as well scan it."



"Wonder where this connects."





"Now watch this carefully . . ."

... at the A.M.A. Convention



"I think I'll . . ."



Loaded down.



"This is hard work!"

"Look at this, Dad."



"Think I'm kidding?"



MEDICAL TIMES





Easy does it.



"Hmmmm . . ."



Rounding the bend.



Crowded corner.

Heavy traffic - coming and going.

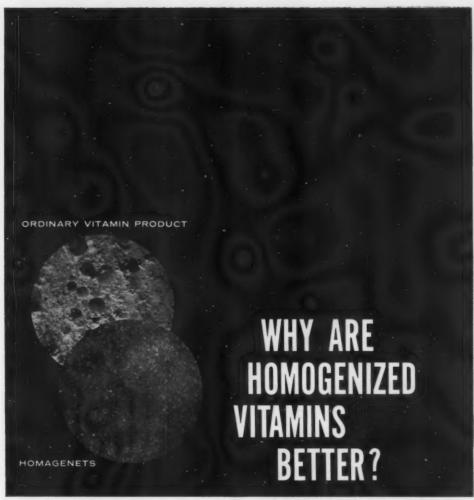


(VOL. 88, NO. 5) MAY 1960



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Nembutal 110 Selsun Opposite page 34 Ames Co., Inc. Color Calibrated Clinitest	10a	Aristocort	SchenLabs Pharmaceuticals, Inc.
Selsun Opposite page 34	34a	Bamadex206a, 210a, 214a, 220a	Dorbane, Dorbantyl, Dorbantyl
Ames Co., Inc.		Declomycin Syrup 141a	Forte
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Singosern 62a 108a 109a 20	DRa	Medicone Co.	Raudixin 195a
Description of the sector of t	ooa	Rectal Medicone Suppositories 218a	
Daywell Laboratories	98a	Rectal Medicone Suppositories 218a Rectal Medicone Unguent 219a	Sunkist Growers Citrus Bioflavonoids
	90u	Merck Sharp & Dohme Division of	Citrus Bioflavonoids 176a Hesperidin 177a
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A CAROLINGAL	31a	Merrell Co., The Wm. S.	Bacimycin Ointment 50a
	Jia	Tace149a, 151a	Wallace Laboratories
Endo Laboratories	45a	Mulford Colloid Laboratories	Appetrol 66a
	43 a	Anergex 101a	Deprol
Fougera & Co., Inc., E.	66a	Organon, Inc.	Milnoth 175
	800	Nugestoral Cover 3	Miltown Opposite page 820: 1600
Frigidaire Division	14-	Ortho Pharmaceutical Corp. Delfen, Preceptin 180a	SomaOpposite page 83a; 83a
	14a	Deales Deale & Co	
Fuller Pharmaceutical Co.	74	Parke, Davis & Co.	Warner-Chilcott Laboratories
	74a	Dilantin 78a 79a	Nardil 74a 75a
Geigy Pharmaceuticals		Parke, Davis & Co. Chloromycetin 197a Dilantin 78a, 79a Eldec 222a, 223a Northtin 93a	Choledyl 192a Nardil 74a, 75a Parsidol 98a Peritrate 20 mg. 28a Tedral 185a
Anturan 6	65a		Peritrate 20 mg. 28a
Butazolidin	54a	Pitman-Moore Co. Neo-Polycin Ointment 12a Novahistine Singlet Tablets 55a	Tedral 185a
Sterazolidin 10	71a 81a	Neo-Polycin Ointment 12a	Westwood Pharmaceuticals
	91a	Novahistine Singlet Tablets 55a	Fostex 183a
Holland Pontos Co. Inc.	214	FileHoxelle 133a	White I shorstories
Holland-Rantos Co., Inc. Hyva Vaginal Tablets	35a	Reed & Carnrick	Dramcillin-S 124a, 125a
riyva vaginai Tablets	33a	Modutrol 163a	Dramcillin-S 124a, 125a Gitaligin 97a Mol-Iron 20a
Interstate Photo Supply Miranda Automex Camera 20	202a	Riker Laboratories	Mol-Iron 20a
Miranda Automex Camera 20	02a	Rauwiloid	Permitil 113a
Irwin, Neisler & Co.		Robins Co., Inc., A. H.	Vitamin A & D Ointment 104a
Analexin	73a	Ambar Extentabs 107a	
Ives-Cameron Co.		Dimetane Expectorant, Dimetane Expectorant-DC 207a	Vitamin A & D Ointment with Prednisolone 167a
Cyclospasmol 22 Isordil Tablets Spensin-PS 3	21a		
Spansin DE	4a	Domazyme 12/a	Winthrop Laboratories
Spensin-PS	32a	Roche Laboratories, Division of Hoffmann-LaRoche Inc.	Mebaral 64a
Kelgy Laboratories	110-	Alurate Elixir 249	Wyeth Laboratories
	210a	Librium Cover 2	Aludrox SA 84a
Kinney & Co., Inc.	00	Noludar 300	Darcil Tablets
	80a	Alurate Elixir 24a Librium Cover 2 Noludar 300 658 Triburon Vaginal Cream 135a	Between pages 50a, 51a; 51a
Knoll Pharmaceutical Co.		Roerig & Co. J. B.	Oxaine
	18a	Atarax 119a Bonadoxin 170a Maxipen 86a, 87a	
Lakeside Laboratories, Inc.		Bonadoxin 170a	Phenergan Expectorant 165a
Caytine	8a	Maxipen86a, 87a	Sparine 70a



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